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THE ARMY'S OUTPUT ORIENTED RESOURCE
MANAGEMENT SYSTEM (OORMS):
THE IMPACT ON MANPOWER MANAGEMENT

by

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December 1987

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This thesis analyzes the Army's Output Oriented Resource Management System (OORMS) to evaluate its effect on manpower management. OORMS was developed in response to a need for a systematic feedback loop in the Army's Planning, Programming, Budgeting, and Execution System (PPBES) process. The system is designed to provide feedback in terms of outputs achieved for inputs assigned in the PPBES. This research focuses on the impact of OORMS on manpower management in terms of the quality and usefulness of the information provided and the workload required to support the system. The study supports the conclusion that OORMS, as currently developed, does not support manpower management. Recommended actions to improve the usefulness of OORMS are provided.

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The Army's Output Oriented Resource
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The Impact on Manpower Management

by

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ABSTRACT

This thesis analyzes the Army's Output Oriented Resource Management System (OORMS) to evaluate its effect on manpower management. OORMS was developed in response to a need for a systematic feedback loop in the Army's Planning, Programming, Budgeting, and Execution System (PPBES) process. The system is designed to provide feedback on execution in terms of outputs achieved for inputs assigned in the PPBES. This research focuses on the impact of OORMS on manpower management in terms of the quality and usefulness of the information provided and the workload required to support the system. The study supports the conclusion that OORMS, as currently developed, does not support manpower management. Recommended actions to improve the usefulness of OORMS are provided.

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I. INTRODUCTION

A. BACKGROUND

The Army Planning, Programming, Budgeting and Execution System (PPBES) serves as the primary management system within the Department of the Army to ensure effective use of resources. In practice, however, there has been a problem with linking together each phase of the PPBES process. Specifically, the Army has not been able to effectively track the execution of its programs to evaluate the extent to which planning, programming, and budgeting activities are able to achieve desired results.

To improve the linkage between plans, programs, budgets, and executions, the Army has recently developed an Output Oriented Resource Management System (OORMS). This system is designed to provide feedback on execution in terms of outputs achieved for inputs assigned in the PPBES. The analyses of OORMS data will help identify and evaluate the impact of unforeseen problems and provide feedback to the other phases of PPBES. This information can be used to refine the guidance, assumptions, and data that are used to develop policies and forecast requirements.

Although OORMS has not yet been fully implemented, it is valuable to analyze the design and operational procedures to improve the PPBES process. Since manpower is a critical resource, manpower managers play a key part in the PPBES process. This study analyzes the impact of OORMS on current Army manpower management programs and manpower's role in the PPBES.

B. OBJECTIVES

This thesis analyzes OORMS to evaluate its effect on manpower management. The system is examined to see how it is related to the PPBES and to other manpower management functions. A determination is made as to whether OORMS will provide manpower staffs with the data needed to perform their functions more effectively. The study also investigates the reporting requirements of OORMS and analyzes the potential effects in terms of manpower management staff workloads. When appropriate, recommended modifications to the system are identified.

C. THE RESEARCH QUESTIONS

Based on the research conducted, this study answers the following questions:

  (1) How will OORMS affect Army manpower management?

  (2) How is OORMS related to the PPBES and to other manpower management functions?

  (3) Will OORMS add to the workload of manpower management staffs?

  (4) Will OORMS provide better and more accurate information?

  (5) Will OORMS data enable manpower managers to make better decisions?

D. SCOPE, LIMITATIONS, AND ASSUMPTIONS

1. Scope

Although OORMS is a resource management system that includes both dollars and manpower, this thesis focuses only on the manpower aspects. Undoubtedly, OORMS will require interface between manpower staffs, program budget personnel, and finance and accounting staffs to meet the reporting requirements. This research addresses only those interfaces that affect manpower management.

This thesis does not attempt to evaluate OORMS in terms of monetary costs vs. benefits. No data were

collected on the costs associated with developing, implementing and maintaining OORMS. Moreover, the analysis did not address any potential cost savings resulting from OORMS.

2. Limitations

The 1986 Department of Defense (DOD) Authorization Act directed that the President submit a two-year budget proposal to Congress beginning with Fiscal Years 1988 and 1989. As a result, significant changes are occurring in the DOD Planning, Programming, and Budgeting System (PPBS) and the Army PPBES. Since many of the procedural changes implementing biennial DOD PPBS and Army PPBES have not been developed or refined, this thesis is based on the former annual system. This limitation will not adversely affect the purpose and outcome of this research.

Since OORMS is still in the late development and early implementation stages, there are little data on the actual execution of the system. Therefore, it is difficult to predict, with any certainty, the ultimate effects of OORMS on current Army programs. However, it is possible to analyze the design and proposed operating procedures of OORMS to verify the inclusion of essential elements. This study provides the necessary analysis to make a preliminary evaluation of OORMS

3. Assumptions

The assumptions of this thesis are as follows:

(1) That the reader is familiar with the Army PPBES process.

(2) That OORMS is the only Army initiative to develop a feedback loop in the PPBES process.

E. METHODOLOGY

This research basically involves a policy analysis of OORMS. It includes an investigation of OORMS, its interfaces with current PPBES and manpower management

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systems, and an analysis of the impact of OORMS on these systems. Telephone and personal interviews were conducted with key manpower and OORMS personnel to obtain additional information, opinions, and ideas on OORMS. In addition, a thorough review was made of Army, GAO, OORMS, and other appropriate documentation.

The data for this analysis were obtained from a number of sources, including:

   (1) Army regulations, guidance, and policy documents
   (2) Prior Army and GAO audit reports and studies
   (3) OORMS documentation
   (4) Telephone and personal interviews with Army personnel currently or formerly assigned to manpower management and/or OORMS support duties.

There was an abundance of information available on the deficiencies of the current PPBES and related manpower management systems. There were also adequate data on the theoretical processes of OORMS.

However, there was some difficulty gathering information on the practical application of OORMS. Since the system is still in the late stages of development and only certain segments of the total system are currently being implemented, there were little data on the actual experiences with OORMS. Secondly, since OORMS was developed at the HQDA level, with limited input from installations, it was difficult to obtain sufficient information on the use of OORMS data at installations. A third factor that caused problems was the history of insufficient coordination with manpower personnel on OORMS. Manpower organizations know relatively little about OORMS, particularly at the installation level.

F. DEFINITIONS AND ABBREVIATIONS

Appendix A contains a glossary of terms and Appendix B identifies acronyms and abbreviations used in this thesis.

G. ORGANIZATION OF THE STUDY

This study is organized as follows: Chapter II is a review of literature highlighting important issues in current Army PPBES and manpower management systems. Chapter III provides a brief discussion of specific background issues that have led to the development of OORMS. Chapter IV describes the PPBES, the current manpower management process and the relationships between the two systems. Chapter V provides a description of OORMS and the role of manpower in OORMS. Chapter VI analyzes the impact of OORMS on manpower management and manpower's role in the PPBES. The potential benefits and problem areas are also discussed. Chapter VII summarizes the thesis, provides conclusions, and makes recommendations.

II. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

The Army's systems for managing financial and manpower resources have been criticized. Specifically, the Army has been cited for deficiencies in its system for determining manpower requirements and for its inability to provide reliable, consistent data on actual accomplishments during the execution of its programs. [Ref. 1]

In 1979, the GAO reported that the Army did not have a credible system for determining manpower requirements for support and administrative functions at Army installations. GAO found that requirements were based on appraisals by manpower survey teams [Ref. 2]. However, surveys were not coordinated with other major manpower management activities, such as PPBES, allocation of manpower resources to organizational units, and evaluation of manpower use. In addition, the Army was not able to quantify the impact of not receiving the survey requirements and was not able to accurately predict future manpower needs [Ref. 2:p. 9].

The GAO study found that the manpower survey program was not designed to provide input to the budget. Survey teams established manpower requirements by organizational element, while the Army budgets by activity or function. As a result, the survey findings were in a form that was incompatible with PPBES formats. Furthermore, there were no procedures for relating work center requirements to program changes in the budget.

GAO recommended that the Army develop an improved manpower management system. Specifically, the Army was advised to:

(1) Standardize the manpower management organizational structures at all levels.

(2) Design and implement a manpower requirements system that includes staffing standards developed through work measurement techniques and methods studies.

(3) Assure that the standards enable tying manpower requirements to budget requests.

(4) Develop a management information system that uses a common data base for work center needs, garrison costs, budget requests, allocations, and evaluations of manpower use. [Ref. 2:p. 35]

A 1979 GAO report identified other weaknesses in the Army's manpower management systems. One problem cited was the lack of a common data base for coordinating, budgeting, and evaluating manpower needs. Also, poor control and feedback led to difficulties in justifying manpower requirements and quantifying the impact of staff shortages. The report stated that the Army lacked "the capability to aggregate requirements from the detail level to the budget level; directly relate manpower to workload; trace budget changes to the work center level; and evaluate manpower use with a common data base." [Ref. 3:p. 9]

GAO recommended that the Army develop a manpower management system which was integrated at all organizational levels. The system should allow all functions to be tied together with common data bases and simple reporting systems that can meet manpower and budgeting needs at all levels. [Ref. 3:p. 40]

In 1986, the House Committee on Armed Services requested that GAO conduct a comprehensive analysis of defense manpower requirements programs. GAO's assessment of the Army's programs was limited because the Army was in the midst of a major overhaul in its manpower requirements determination system. In response to the 1979 GAO criticisms, the Army was developing a Manpower Staffing Standards System (MS-3). GAO indicated in the 1986 review that the Army's plans

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for this system were highly responsive to previous recommendations. However, the Army planned to continue its previous manpower requirements determination programs until MS-3 was in place. To the extent the Army continued to use previous methods, GAO concerns identified in the 1979 reports were still relevant. [Ref. 4:p. 10]

The Department of Defense (DOD) has been repeatedly criticized by Congress and other parties for the lack of accountability in the execution of its programs. Budgeting, accounting and related management information systems often produce data that are inconsistent and irreconcilable. Financial reports focus on the obligations, outlays, and manhours expended by appropriation and do not provide a reliable measure of the resources being consumed to carry out identified programs. This lack of accountability has weakened DOD's position in defending its budget before Congress. [Ref. 1:p. 93]

In 1979, a study was sponsored by the U.S. Army War College Military Studies Program to determine how manpower should be managed at Continental United States (CONUS) installations. As a part of the study, interviews were conducted with various key personnel involved in manpower management throughout the Army. One issue that repeatedly surfaced during the interviews was the quality of manpower reporting systems. [Ref. 5]

In general, the manpower management community felt the manpower reporting systems were of little or no value to installations. The reports were too lengthy, too complicated and time consuming. Similar data appeared on various reports signifying duplication of effort and redundancy. In spite of the excessive effort put into the report, it was expressed by

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manpower staff members that useful audit trails for
manpower have been essentially nonexistent. There was
a recognized need for a streamlined and simplified
reporting system and standardization of reports.

GAO reviewed the DOD budget in 1983 to determine
how it is planned and how resources are expended.
Although it was felt that the services were generally
spending as they planned, GAO concluded that there was
a need for more accountability. The study recommended
that DOD provide expected and measurable program
outcomes during budget requests and report on progress
made toward attaining prior year expectations. GAO
also felt DOD should develop a method of linking
anticipated improvements in military capability to
increased levels of resources. [Ref. 6]

In 1985, GAO looked at the role of automated
management information systems in defense force
management. The study identified a number of
weaknesses in the system, including:

(1) Duplication of effort.

(2) Lack of systems integration.

(3) Lack of systems responsiveness.

(4) Lack of software maintenance.

(5) Inadequate software documentation.

(6) Poor data integrity.

(7) Inadequate training of computer personnel.

(8) Use of outmoded computer equipment.
[Ref. 7:p. 11]

These problems were affecting the quality of the force
management decisions that the systems supported.

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III. BACKGROUND

The Defense Planning, Programming, and Budgeting System (PPBS) is the overall management system which annually presents to the President and Congress, the resource requirements for the Department of Defense (DOD). Until the early 1980s, the Army also operated under this three-phase PPBS process. There was growing recognition, however, that PPBS a clear focus on the execution end of the process. Early in the Fiscal Year (FY) 1984-88 cycle, the Army added the Execution phase to the PPBS, thereby renaming its primary resource management system the Planning, Programming, Budgeting, and Execution System (PPBES). [Ref. 8:p. 9]

The objectives of PPBES are as follows:

(1) To reflect the national military strategy in sizing, structuring, and manning the Army force.

(2) To obtain required forces, manpower, and dollars.

(3) To allocate forces, manpower, dollars, and available materiel and equipment among competing demands according to Army resource allocation policy and priorities.

(4) To evaluate how well execution of the program and budget applies resources to achieve intended purposes and adjust resource requirements based on execution feedback. [Ref. 9:p. 4]

Army manpower is an important component of the PPBES. The objective of manpower management is to properly man the forces in support of national security missions. To accomplish this objective, manpower management must:

(1) Identify manpower requirements.

(2) Allocate scarce manpower resources within predetermined priorities.

(3) Man the force structure. [Ref. 10:p. 3]

The determination of manpower requirements extends to the justification of these requirements in the PPBES and the allocation of available authorizations against

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requirements. An effective manpower management program requires timely documentation and control through data reporting systems. These systems must maintain an audit trial of manpower use and provide feedback on execution of programs. [Ref. 10:p. 3]

In practice, some critics allege the PPBES and manpower management processes have not been able to adequately assess execution. Ted Cooper described the PPBES problem as follows:

> The Planning, Programming, Budgeting and Execution System is deficient in that it does not provide meaningful feedback to decision makers on program performance. Decision makers decide to do something (plan) and then determine exactly what to do (program) and then determine specific cost (budget). The contention is that after the budget is finished, the DA Staff goes back to plan or program and start the cycle over again without any meaningful feedback as to what actually gets accomplished during execution-- .g., was the workload that was financed actually accomplished? [Ref. 11: p. 4]

The PPBES was been allowed to exist without a systematic feedback loop--the essential step to evaluate the quality of resource decisions and to improve the quality of future decision making [Ref. 12:p. 6]. Dallas Lower looked at Army management of program execution in 1981. He found that the Army accounting system was not capable of providing data which were pertinent to an evaluation of program execution. The cost data were structured along appropriation lines, not by programs. At that time, research was underway to find more meaningful ways of collecting and extracting data and using the results as feedback for future PPBES cycles. [Ref. 4:p. 96]

As a major effort to correct the deficiencies in the PPBES, the Army introduced plans in 1984 to develop an Output Oriented Resource Management System (OORMS). This system was expected to help close the loop in the PPBES. OORMS was being designed to provide feedback on execution in terms of outputs achieved for inputs planned, programmed, budgeted, and then used.

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In 1985, Barry Baer analyzed the Army's PPBES problem of inadequate feedback to decision makers on program performance and evaluated the capability of OORMS to correct the problem. He recognized the need for a financial management structure that would include performance information that can be used for both day-to-day management and policy and budgeting decisions. This system would require:

(1) Agreement in relevant measures of accomplishment (performance factors).

(2) A systematic collection of reliable, consistent, and comparable information on costs and accomplishments.

(3) That the information be routinely supplied for use in management, planning, programming, and budgeting. [Ref. 11:p. 1]

Baer recommended the implementation of the OORMS process to improve the Army's PPBES and to focus attention on the relationship of resources to outputs. OORMS would use microcomputers and diskettes to transmit information between HQDA, Major Commands (MACOMs), and Major Subordinate Commands (MSCs)/installations. The data in OORMS, taken from standard Army financial systems, would provide the information necessary to evaluate whether input resources achieved the desired outputs.

OORMS is currently in the late development and early implementation stages. When fully operational, OORMS is expected to provide:

(1) The key events of the Army's PPBES.

(2) More time for analysis and review through reduction in preparation time.

(3) Linkages of accounting (financial data), manpower, and output data with program/budget data--vertically through commands and horizontally across commands.[Ref. 13:p. 2-3]

OORMS is supposed to give resource managers trackable, auditable, and consistent information about the resources that are planned, programmed, budgeted, and consumed.

The critical element of output achieved for resources consumed is an added dimension that currently is not readily available to Army resource managers. For manpower managers, output data are of particular interest. OORMS promises to provide outputs produced or workload accomplished for manhours expended. This information is fundamental in the determination of manpower requirements and in the evaluation of manpower utilization. Furthermore, the key identification of resources to outputs will be an essential baseline for evaluating the effectiveness of productivity enhancement programs throughout the Army.

Manpower management staffs at all levels are currently challenged with many responsibilities in performing their duties. OORMS is intended to simplify and reduce the burden associated with producing the basic products involved with manpower management. This new system promises to improve the quality of manpower input to the PPBES; it is not intended to be another stovepipe system that only adds to the workload of manpower staffs.

In view of the many criticisms the Army has received on its inadequate manpower management programs, it is important to evaluate the potential impact of OORMS on manpower management. Since OORMS has not yet been fully implemented, there has been little research conducted on the system except for descriptions of its theoretical processes. To date, there has been no available analysis of the impact of OORMS on the manpower community, particularly at the installation level.

Several benefits should be realized from this research. One benefit of this analysis is that it will provide insight into the expected impact of OORMS on manpower management within the Army. This information

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can help manpower managers understand how OORMS will change the way they perform their operations and how to get the maximum benefits from it.

A second benefit is that the study may enhance the coordination between the manpower, program/budget, and financial management communities. Since most budget systems are developed for, and managed by, the financial side of resource management, there is a tendency for inadequate coordination with the manpower side.

This research may also lead to the identification of needed modifications in OORMS that would enhance its benefits to manpower management. Since some of the OORMS components are still under development, minor changes could be relatively easy to implement. Furthermore, if there are major problems with OORMS that would prevent achievement of its objectives, it would be better to identify them before the system is fully operational. It is important to determine whether OORMS will improve manpower management and the PPBES process, or create new problems for the program.

IV.   PPBES AND MANPOWER MANAGEMENT

A.   DESCRIPTION OF PPBES

1.   The DOD PPBS

The parent system of the Army's PPBES is the DOD PPBS. The PPBS is the overall management system used to plan, program, and budget for DOD resources. It provides a framework for making decisions on the use of resources to accomplish specific objectives in national defense. Through the PPBS, the Secretary of Defense (SECDEF) and the Secretaries of individual service branches provide policy and guidance on force levels and manpower and fiscal constraints. The SECDEF also uses the PPBS to issue decisions on defense programs and to budget annual funds to support the programs. [Ref. 14:p. 45]

The official summary of the programs developed in the PPBS and approved by the SECDEF is published in the Five Year Defense Program (FYDP). The FYDP documents the manpower and dollar resource requirements associated with the approved programs of all military departments and defense agencies. Manpower and dollar resources are reflected for the prior fiscal year, current fiscal year, two budget years, and three subsequent fiscal years. Force levels are presented for the prior fiscal year, current year, two budget years, and six subsequent years.

The FYDP structure contains 11 major defense programs as shown in Table 1. Each program is subdivided into program elements or subprograms. Each subprogram with its personnel, equipment, and facilities makes up an identifiable military capability. [Ref. 14:p. 14-5]

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TABLE 1
ELEVEN MAJOR DEFENSE PROGRAMS

Program 1	Strategic Forces
Program 2	General Purpose Forces
Program 3	Intelligence and Communications
Program 4	Airlift/Sealift
Program 5	Guard and Reserve Forces
Program 6	Research and Development
Program 7	Central Supply and Maintenance
Program 8	Training, Medical and Other General Personnel Activities
Program 9	Administration and Associated Activities
Program 10	Support of Other Nations
Program 11	Special Operations Forces

(Ref. 15)

While DOD programs in terms of the 11 major programs and associated subprograms, the budget request submitted to Congress are structured along appropriation lines. Table 2 reflects the major appropriation categories. To meet the needs of both DOD (output oriented) and Congress (input oriented) the FYDP has the capability to provide a crosswalk between the program elements and appropriations. [Ref. 15:p. 14-5] To obtain this capability, the services must format their manpower and dollar resource inputs by both program element and appropriation.

The FYDP is updated three times each year. The first update occurs in January to reflect resource levels in the President's budget submission to Congress. The second update is made in May following the submission of each defense component's Program Objective Memorandum (POM) to the Office of the Secretary of Defense (OSD). The third update follows the submission of Service Budget Estimates to OSD in September.

The Defense Resources Board (DRB) assists the SECDEF in managing the PPBS process. In this role, the DRB:

(1) Reviews proposed policy, planning, and programming guidance.

(2) Conducts the program and budget review.

(3) Evaluates high priority programs.

(4) Ensures that major acquisition programs align with the PPBS.

(5) Advises the SECDEF on policy, PPBS issues, and proposed decisions. [Ref. 9:p. 4]

2. Overview of PPBES

The PPBES is the primary management system used by the Army to ensure effective use of resources to accomplish its roles and missions. It differs from the DOD PPBS by formally including program and budget execution as a separate phase of the system process.

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TABLE 2
MAJOR APPROPRIATION CATEGORIES

Military Personnel

Operations and Maintenance

Procurement (Aircraft, missiles, weapons &
    tracked vehicles, ammunition and other)

Research, Development, Test and Evaluation

Military Construction

Family Housing (Construction and Operation)

Army Stock Fund

(Ref. 15)

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Linking to the OSD programming and budgeting processes, the PPBES develops and maintains the Army section of the FYDP and defense budget. [Ref. 9:p. 4]

The PPBES supports budget preparation from installation to Army staff level. Furthermore, the documents produced in the PPBES process help support defense decisionmaking. For example, the Army helps prepare the Joint Strategic Planning Document (JSPD) as well as the Defense Guidance (DG) for department planning, programming, and budgeting. The Army's participation influences policy, strategy, and force objectives considered by the SECDEF and the Joint Chiefs of Staff (JCS). [Ref. 9:p. 4]

The PPBES is structured to allocate program and budget resources to products described by Management Decision Packages (MDEPs), which together establish Army force capability. The MDEPs are distributed among five discrete management areas as follows:

(1) Missions of tables or organization and equipment (TOE) units.

(2) Acquisition, fielding, and sustainment of systems.

(3) Activities of the support and mobilization base.

(4) Operations of Army installations.

(5) Special functional areas (packages that cut across two or more management areas). [Ref. 9:p. 4]

MDEPs have two components. The first is a Program Development Increment Package (PDIP) that covers the five program years and helps build the Army program. The PDIP identifies an individual program or capability and links it to the resources needed to accomplish it. PDIPs are the building blocks of the Army POM and help with the prioritization of limited resources. They provide visibility to individual programs which allows decisionmakers to select how to

spend limited force structure, manpower, and dollar resources. [Ref. 15]

The second component of the MDEP is a Budget Increment Package (BIP). The BIP is similar to the PDIP, but covers the prior fiscal year, current fiscal year, and budget fiscal year. Figure 4.1 illustrates an MDEP applicable to the FY 1988-1992 PPBES cycle.

The PDIP and BIP complement each other in format and substance. The PDIP applies to programmed resources and the BIP records budgeted or actually executed resources. Together, the PDIP and the BIP allow both programmers and budgeters at all levels to see the manpower and dollars required to produce a given program output.

Although the PDIP and BIP are similar, they each differ in purpose and fiscal years. As a result, each has its own language. The flexibility for managing funds differs greatly between the programming and budgeting phases. Before the President's budget is submitted to Congress, the Army has significant freedom with the PDIP to realign resources among appropriations. After the budget goes to Congress, however, restrictions imposed by the Administration and Congress severely limit the Army's ability to realign within the BIP. [Ref. 9:p. 4] Therefore, the PDIP serves as a flexible Army tool useful in programming, while the BIP reflects rigid congressionally appropriated funds for a specific PDIP. [Ref. 8:p. 9]

The PPBES has four formal phases. Three of the phases correspond to the DOD PPBS: planning, programming, and budgeting. The fourth, execution, is a distinct system phase for only the Army. The PPBES cycles, as well as the four phases within each cycle, overlap each other in practice. Figure 4.2 depicts

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MDEP

```
        BIP                              PDIP

   +------+------+------+      +-----+-----+-----+-----+-----+
   |  PY  |  CY  |  BY  |      |  1  |  2  |  3  |  4  |  5  |
   +------+------+------+      +-----+-----+-----+-----+-----+

FY   87     88     89           90    91    92    93    94
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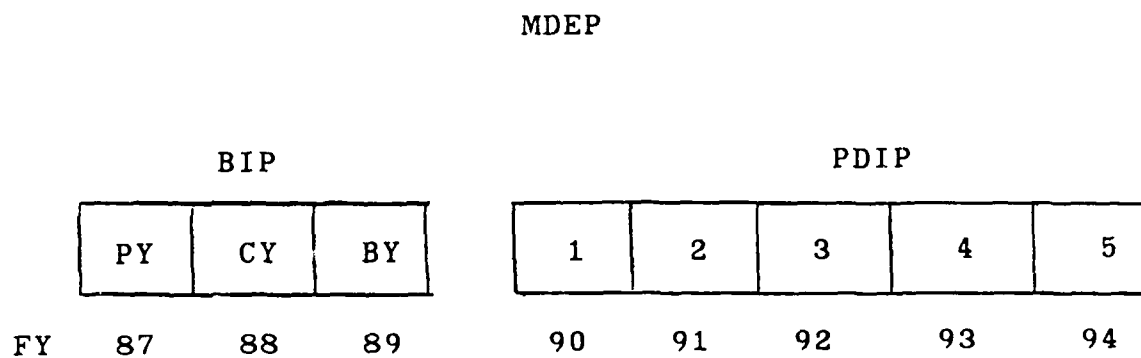
Figure 4.1   The Management Decision Package (MDEP)
             (Ref. 9)

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the relationships between PPBES phases. The next sections explain each of the four phases.
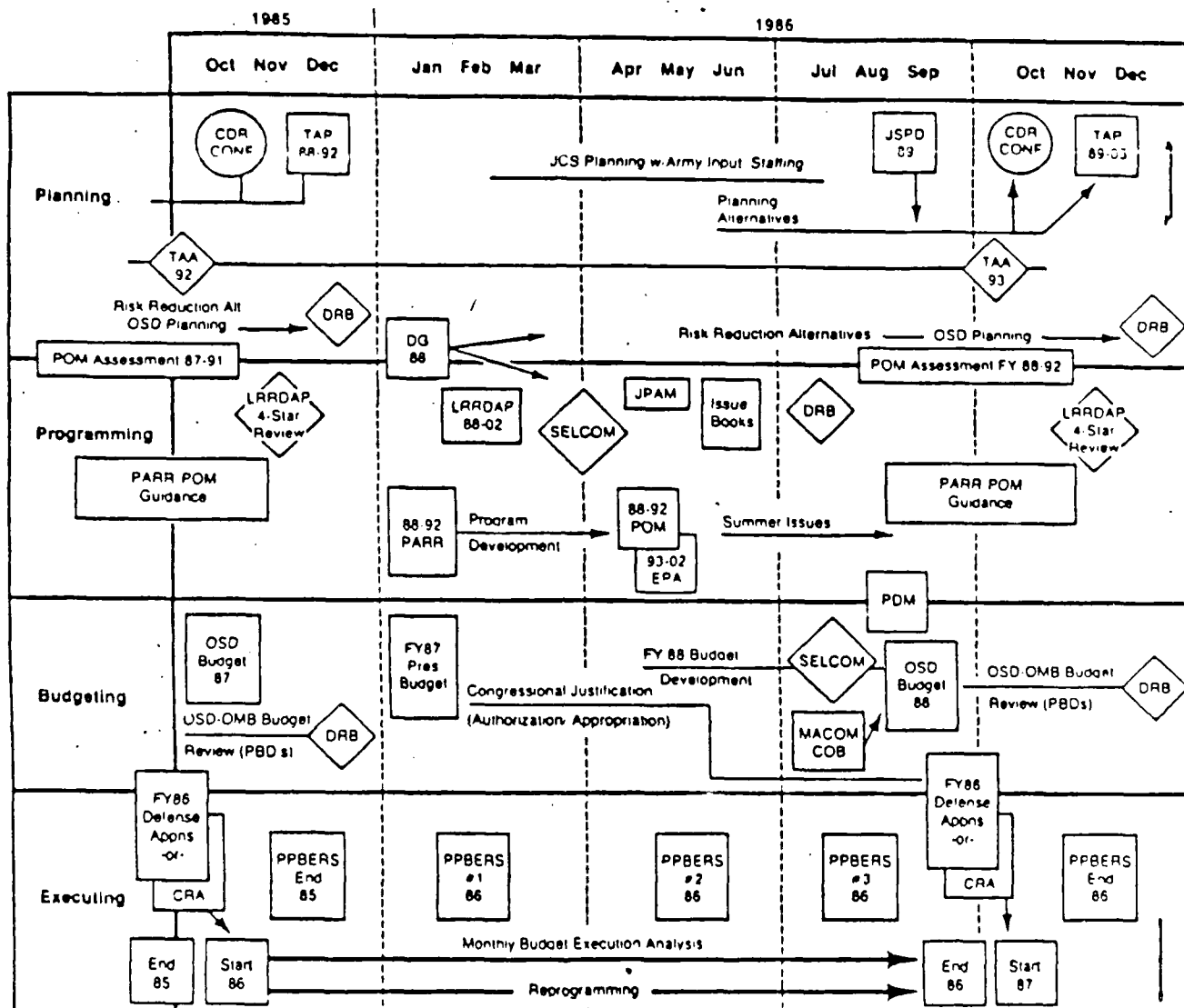
3. Planning

Army planning supports the DOD PPBS and JCS strategic planning. It contributes to the military strategy, advice, and recommendations the JCS give the SECDEF and the President through the Joint Strategic Planning System.

> Army planning examines national objectives and enemy capabilities; identifies the military strategy needed to maintain national security and support U.S. foreign policy; determines what integrated and balanced military forces are needed to support that strategy; and establishes a basis for managing DOD resources effectively and efficiently to accomplish its missions, consistent with resource constraints. [Ref. 15:p. 14-9]

There are three phases to Army planning. During the first phase, Force Requirements Planning, the Army staff translates defense policies and objectives into Army terms. Army planners use this information, along with Army long range plans, and other current studies and issues, to determine relatively unconstrained requirements for Army forces to achieve national objectives. [Ref. 9:p. 6] The analyses conducted in this phase are documented in the Army submission to the JSPS to help planners build the planning force. Table 3 outlines the concepts distinguishing the types of forces developed in force planning and programming.

The second planning phase involves Objectives Planning, where the Army considers the projected availability of resources. It evaluates alternatives for allocating resources by applying a process called macroanalysis. Macroanalysis constructs candidate force alternatives that differ in the levels of resources applied to Army functions. This process allows decisionmakers to develop and review affordable alternatives.

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1985 | 1986

Oct Nov Dec | Jan Feb Mar | Apr May Jun | Jul Aug Sep | Oct Nov Dec

Planning

CDR CONF — TAP 88-92 — JCS Planning w/Army Input Staffing — JSPD 89 — CDR CONF — TAP 89-03

Planning Alternatives

TAA 92 — TAA 93

Risk Reduction Alt OSD Planning — DRB — DG 88 — Risk Reduction Alternatives — OSD Planning — DRB

POM Assessment 87-91 — POM Assessment FY 88-92

Programming

LRRDAP 4-Star Review — LRRDAP 88-02 — SELCOM — JPAM — Issue Books — DRB — LRRDAP 4-Star Review

PARR POM Guidance — PARR POM Guidance

88-92 PARR — Program Development — 88-92 POM — Summer Issues

93-02 EPA

PDM

Budgeting

OSD Budget 87 — FY87 Pres Budget — FY 88 Budget Development — SELCOM — OSD Budget 88 — OSD-OMB Budget Review (PBDs) — DRB

USD-OMB Budget Review (PBD s) — DRB — Congressional Justification (Authorization/Appropriation) — MACOM COB

Executing

FY86 Defense Appns -or- CRA — FY86 Defense Appns -or- CRA

PPBERS End 85 — PPBERS #1 86 — PPBERS #2 86 — PPBERS #3 86 — PPBERS End 86

End 85 — Start 86 — Monthly Budget Execution Analysis — End 86 — Start 87

Reprogramming

COB—Command Operating Budget
CRA—Continuing Resolution Authority
DG—Defense Guidance
DRB—Defense Resources Board
EPA—Extended Planning Annex
JPAM—Joint Program Assessment Memo

JSPD—Joint Strategic Planning Document
LRRDAP—Long Range Research. Development.
  and Acquisition Plan
JSPD—Joint Strategic Planning Document
PARR—Program Analysis Resource Review
PBD—Program Budget Decision
PDM—Program Decision Memorandum

PPBERS—Program Performance and Budget
  Execution Review System
POM—Program Objective Memorandum
SELCOM—Select Committee
TAA—Total Army Analysis
TAP—The Army Plan

Figure 4.2   The PPBES Process (Ref. 9)

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TABLE 3
FORCE CONCEPTS COMPARISON

RISK	
Minimum risk force	High assurance of success (minimal risk)
Planning force	Reasonable assurance of risk (moderate risk)
Objective force	Less than adequate assurance (considerable risk)
Programmed force	Inadequate assurance (considerable risk)

RESOURCES	
Minimum risk force	Unconstrained
Planning force	Relatively unconstrained
Objective force	Reasonably attainable
Programmed force	Fiscally and manpower constrained

FORCE STRUCTURE	
Minimum risk force	Fully structured and supported
Planning force	Fully structured and supported
Objective force	Reasonably structured and supported
Programmed force	Reasonably structured and supported

(Ref. 9)

Objectives planning uses a force development process called Total Army Analysis (TAA). For each POM year, TAA develops a proposed program force that can best meet the projected mission, given anticipated resource limits. TAA also specifies the objective force requirements for a 10-year extended period beyond the POM. [Ref. 9: p. 7]

Planning Documentation is the third phase, ending with the publication of The Army Plan (TAP). The objective force alternatives are presented to the Army leadership for decision. The objective force selected and approved is published in the draft TAP and is considered at the Army Commander's Conference. Following the Commander's Conference, the TAP is finalized and presented to the Chief of Staff, Army (CSA) and Secretary of the Army (SA) for the final approval. [Ref. 9:p. 7]

The TAP is published as part of the Army Guidance (AG) to bridge the gap between planning and programming and guide development of the POM. The Army Plan provides Army leadership policy and resource guidance to support the Army's mission. It also establishes priorities for allocating both manpower and dollar resources. [Ref. 15]

4. Programming

During the programming phase of the PPBES, the Army uses the planning decisions and OSD programming guidance to develop a comprehensive and detailed allocation of forces, manpower, and dollars for a five year period. HQDA maintains a data base in the PPBES Data Management System (PROBE) to help build and manage the Army program. This results in the Army's POM, reflecting the Army's proposal for a balanced allocation of its resources within specified constraints. It contains the forces, manpower,

training, materiel acquisition, and logistics support required to meet the Army's objectives. [Ref. 15] The POM, as approved by the SECDEF is the basis for developing the Army Budget Estimates Submission (BES) [Ref. 9].

A second document resulting from the Army programming is the Extended Planning Annex (EPA). As an annex to the POM, the EPA extends for ten years beyond the five-year POM program. It presents the materiel acquisition profile for selected major systems and projects operating and support costs in terms of force structure, manpower, and military construction. [Ref. 15:p. 14-10]

A number of documents provide guidance for developing the POM. The DG, developed during the planning phase, provides the SECDEF's programming direction. Army Guidance is also issued to the Army Staff, MACOMs, and Operating Agencies. It consists of four volumes.

Volume I is The Army Plan. Volume II documents program development procedures and includes instructions to MACOMs for preparing their Program Analysis Resource Review (PARR) and Modernization Resource Information Submission (MRIS). The PARR describes the resource requirements of MACOMs and Operating Agencies to undertake new initiatives and to increase or decrease support for existing programs. [Ref. 9:p. 8] It is used by Army organizations to cost, in detail, the major program issues [Ref. 1:p. 37]. The MRIS identifies MACOM operations and support requirements (e.g., repair parts, tools, military construction) needed to support the fielding and sustainment of new and displaced equipment. Volume III of the Army Guidance provides DA-directed PDIPs for

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MACOM assistance in costing. Volume IV forwards OSD instructions for preparing the POM.

Another document provided by HQDA is the Program and Budget Guidance (PBG). The PBG forwards resource guidance (manpower and dollars) to MACOMs/Operating Agencies three times a year. The PBG published in February reflects the President's budget and establishes the base used in Army POM development. It also documents the current fiscal year resource levels approved by Congress. The May PBG reflects the levels of resources submitted to OSD in the POM and provides MACOMs a formal reply to their PARR submissions. The October PBG is based on the OSD budget submission and provides guidance for preparing the PARR. [Ref. 15:p. 14-11]

Three additional sources of programming guidance are the FYDP annexes, the Long Range Research, Development and Acquisition Plan (LRRDAP), and Acquisition Reviews. The FYDP annexes provide resource guidance for procurement, construction, and Research, Development, Test and Evaluation (RDTE). The LRRDAP describes the strategy and specific programs for research, development, and acquisition based on the goals and objectives contained in the TAP. The annual Acquisition Reviews incorporate budgeting and programming for RDTE and procurement. A key result of the reviews is the identification of RDTE and procurement POM-to-budget issues. [Ref. 9: p. 8]

The Army has established nine functional areas to build the Army program. Table 4 presents the nine functional areas currently used. All competing PDIPs are assigned to one of the nine areas. Army staff functional area proponents establish nine corresponding panels to rank order all assigned PDIPs. Each functional area is assigned manpower and dollar

TABLE 4
NINE ARMY FUNCTIONAL AREAS

STRUCTURING

Relates to TOE or TDA structuring actions

MANNING

Provision of manpower resources

TRAINING

Individual and unit training

MOBILIZING AND DEPLOYING

Preparations prior to M-Day to enable the forces to expand in the event of war or other national emergency

PROVIDING FACILITIES

Construction or improvement of bases, installations, family housing, production facilities, environmental protection, and real property maintenance

MANAGING INFORMATION

Actions necessary to develop, transmit, use, integrate, and secure information

EQUIPPING

Includes all research, development and acquisition activities

SUSTAINING

CONUS base support and logistics base in support of the existing force

MANAGING

Activities that directly contribute to the effective overall management within the Army

(Ref. 15)

ceilings. As a result, some PDIPS are unresourced, while others near the margin are considered at risk.

The prioritized lists of resourced and at-risk PDIPs in each functional area become the initial POM base. After undergoing a functional review by Army staff committees, decisions are made as to which PDIPs will get resourced, which will be at risk, and which will be unresourced. Upon approval by the CSA and the SA, the final decisions are locked into the Army POM and submitted to OSD.

Each Service POM is reviewed by the JCS for the overall balance of the force and impact on national military strategy. This review is published in the Joint Program Assessment Memorandum (JPAM). The JPAM provides an overall risk assessment of the POMs. [Ref. 15:p. 14-4]

OSD reviews the POMs and the JPAM and identifies alternatives for those issues where OSD differs from the Service. These issues are assembled into Issue Books. Issue Books formally evaluate POM proposals as they relate to policy and planning guidance; address the balance between readiness, sustainability, modernization, and force structure; define issues and list alternatives; evaluate capabilities and costs of the alternatives. [Ref. 9:p. 9]

After receiving comments from the Service, OSD sends the Issue Books to the DRB for review and decision. The formal reply to the POM submission is furnished by OSD through the Program Decision Memorandum (PDM). The PDM approves the POM with necessary changes and provides the basis for the budget submission. [Ref. 9:p. 9]

5. Budgeting

During the programming phase, Army plans are translated into a balanced allocation of forces, manpower, materiel, and dollars for five years. Budgeting translates these requirements to manpower and dollar needs by Congressional appropriation category, emphasizing the first two years of the five-year program. [Ref. 15: p. 14-15] Army budgeting proceeds in three stages: formulation; negotiation and justification; and execution.

Budget formulation converts the first year of the approved PDM into Army Budget Estimates. During this process, the Army validates POM pricing and executability assumptions [Ref. 9: p. 11]. MACOMs and installations provide input through the Command Operating Budget (COB) submission. The COB reflects resource decisions made during POM development as published in the May PBG. MACOM COBs provide detailed budget and workload data on their command operating programs to help appropriation sponsors develop and defend budget estimates. The COB gives information for the prior year, current year, budget year, and the first program year. [Ref. 15:p. 14-16] Budget submissions paralleling the COB apply to RDTE, procurement and military appropriations, as well as for the National Guard and Reserve appropriations.
[Ref. 9:p.9]

Upon approval of the Budget estimates by the CSA and SA, the BES is submitted to OSD. Analysts from OSD and the Office of Management and Budget (OMB) review the BES. Alternatives to the Army proposal are developed and forwarded to the Army in a Program Budget Decision (PBD). The finalized Army budget is integrated into the total DOD budget and submitted in the President's Budget to Congress.

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The second stage of budgeting, negotiation and justification, is centered on congressional review of the President's budget and the programs it supports. The review involves three separate but related processes: congressional budget, program authorization, and financial appropriations. First, the House and Senate Budget Committees prepare a congressional budget that establishes targets for outlays and budget authority. After receiving approval from both Houses, the congressional budget guides the program authorization and financial appropriations process. [Ref. 9: p. 11]

The congressional authorization process sets the upper limits of program authorization for Army programs. Prepared at the Budget Line Item level, it establishes the limits for each line of the budget request in quantity and dollars. The House and Senate Armed Services Committees exercise primary cognizance of defense authorizations. [Ref. 9:p. 11]

The appropriations process establishes the final limits on the funds available to the Army for the next fiscal year. Appropriations may not exceed the levels set in the authorization act and usually fund less than the full amount of the authorized program. [Ref. 9: p. 11]

During budget negotiation and justification, the Army provides detailed justification books to the Armed Services and appropriation committees. These committees hold formal hearings to discuss the issues in the budget submission. When the congressional reviews are completed, the committee bills are voted on. Any differences between the House and Senate are resolved in a joint conference. Upon approval by both Houses, the appropriation bills are sent to the President for signature. Army appropr'ations then

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become law, providing the legal authority to incur obligations and make disbursements. [Ref. 15:p. 14-17]

6. Execution

The last stage of budgeting, execution, has been designated a distinct and separate phase in the PPBES. Budget execution includes apportioning, allocating, and allotting funds; obligating and disbursing them; and reporting and review. Apportionments, distributed by OMB, authorize the obligation of funds in specified amounts and for specified periods and functions. Allocations of apportioned funds are made to Operating Agencies by the U.S. Army Finance and Accounting Center. Operating Agencies then make funds available to subordinate organizations by an allotment. These organizations obligate funds when placing orders or awarding contracts for products and services needed to carry out approved programs. Disbursements are made after deliveries of materiel or services occur.
[Ref. 9:p. 11]

Since the services are held accountable for the execution of their programs, the CSA has established a Program Performance and Budget Execution Review System (PPBERS). This quarterly review reports and evaluates how well resources are being applied to accomplish Army goals. The areas reviewed include manpower programs, major materiel systems and selected non-materiel programs of special interest. PPBERS compares actual program performance at MDEP level with the objectives established in the BIP at the beginning of the year. If necessary, corrective action is taken to improve program accomplishment. [Ref. 15]

Accounting support is very important in obtaining feedback from execution. The accounting function collects data for actual apportionments,

obligations, and outlays. These data provide historical information to help develop future budgets and make current decisions on expenditures.

B. MANPOWER AND FORCE MANAGEMENT

1. General

AR 570-4, Manpower Management, [Ref. 10] states that the "objective of Army manpower management is to properly man Army forces in support of national security missions." Within the PPBES process, the Army must design the force, identify the corresponding manpower requirements, and then allocate the limited manpower resources. The force management process develops the detailed design of the Army's elements and its total structure. The manpower program implements and supports that design. Manpower management involves obtaining and allocating the manpower spaces required to build the force structure.

The force management process is the overall operation through which the tables of organization and equipment (TOE), modification tables of organization and equipment (MTOE), and tables of distribution and allowances (TDA) units are planned, developed, and programmed into the force structure. This DOD process runs concurrent and parallel with the PPBES but has its own distinct phases.

Manpower and force management consists of four activities which parallel the PPBES: Planning, Programming, Budgeting, and Authorization Management. Planning begins with threat analysis and ends with a definition of the detailed planning force structure to support POM development. The programming phase coincides with the POM and identifies the level of resources required to man the program force reflected in the POM and FYDP. Budgeting converts manpower requirements for the program force into requests for

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end strength authorization. Authorization management
begins with each FYDP update of programming and
budgeting, proceeds through the Army standards and
requirements determination process, and ends with the
analysis and utilization process. [Ref. 16]

2. Force Planning

Force planning is an essential element in the
force management process which determines the Army's
needs in gross numbers of major organizations. As
demonstrated in Figure 4.3, it begins with the
contingency planning system and ends with the
determination of an objective force. In contingency
planning, a minimum risk force (MRF) is developed by
the JCS based on an analysis of the threat. The MRF
identifies the force capabilities required to provide a
high assurance of successfully supporting the military
strategy. This force is fully structured and
supported, unconstrained by manpower, equipment, or
dollar resources.

As constraints are applied through the Defense
Guidance, a more affordable and realistic planning
force is designed. The planning force is capable of
supporting the strategy but with some level of risk.
Since its requirements still exceed available peacetime
defense resources, the planning force serves as a
baseline for establishing priorities in allocating
program resources and assessing the allocated risk.

The objective force is the end product of force
planning. This force, with even more constraints
imposed on its design, focuses on the year of the
current POM and is used as a realistic goal in the
later development of the program force. The objective
force presents the macro level (division) force
requirements to meet specific objectives. It is the
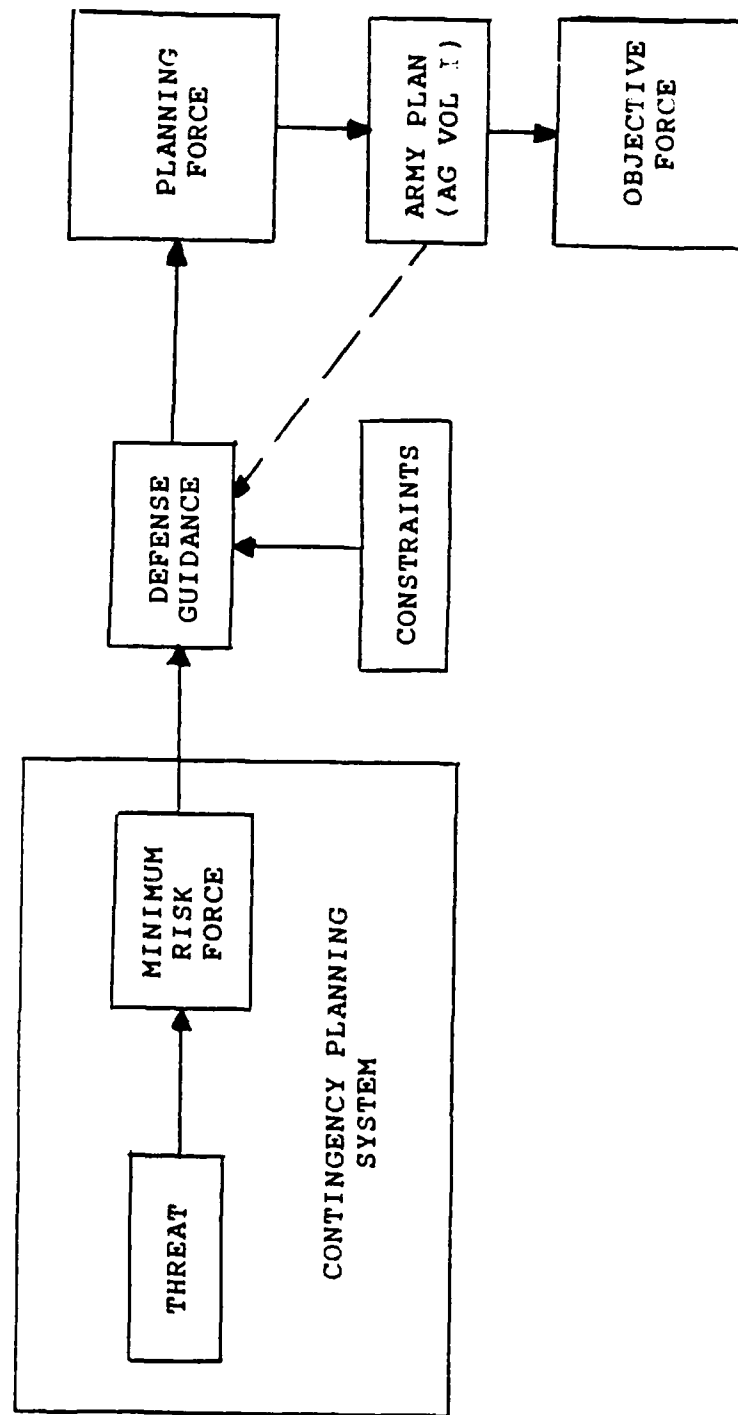
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Figure 4.3   Force Planning   (Ref. 16)

basis for the development of force structure guidance contained in The Army Plan. [Ref. 16]

The transition from force planning to programming involves a force development process. Figure 4.4 shows that force development takes the objective force through the TAA process and results in the POM Base Case. Force structure development in the TAA process involves the "derivation of the Army program force structure through an analysis of the national military strategy, potential threats, doctrine and available or projected resources." [Ref. 16] The force development process is designed to:

   (1)   Specify the force structure for each program year.

   (2)   Provide the basis for adjusting the force structure to meet program constraints.

   (3)   Assess force capabilities, deficiencies, and risk.

   (4)   Assist in the transition of the proposed force structure to the POM. [Ref. 16]

3.   Force Programming

Force programming takes the POM Base Case through the PPBES cycle and results in the POM program force included in the Army POM submitted to OSD (Figure 4.5). The force resulting from the TAA process becomes the initial program force and serves as the basis for development of the Army POM. During the process of prioritizing PDIP's, the Army staff determines which structure programs will be included in the POM. Consideration is given to strength guidance, recruiting capabilities, retention policies, and HQDA program initiatives.

MACOMs and Operating Agencies input their changes in manpower requirements through a POM assessment letter and the PARR submission. [Ref. 10] Upon final approval by the CSA and SA, the POM program force is documented in the POM. The POM is the means
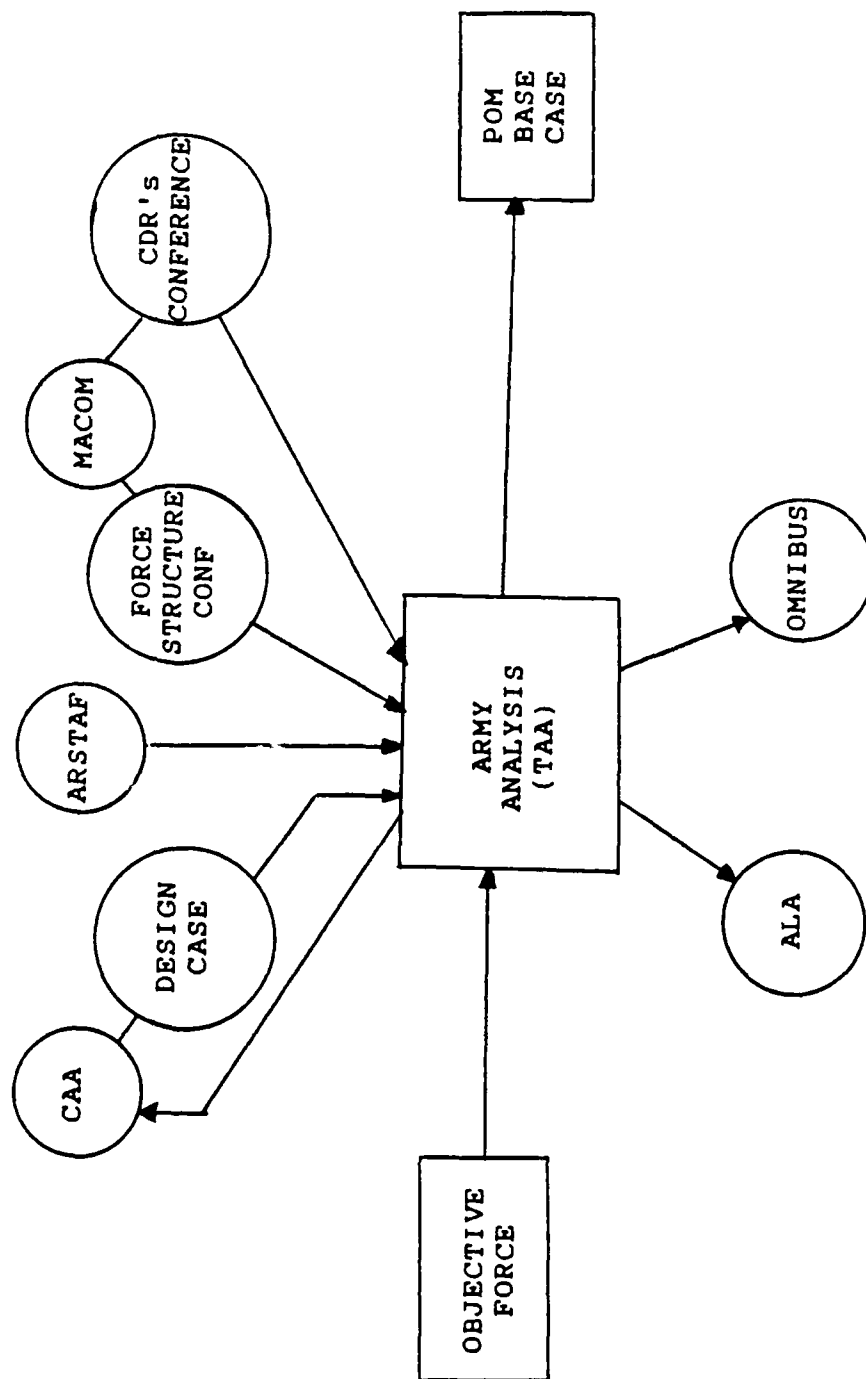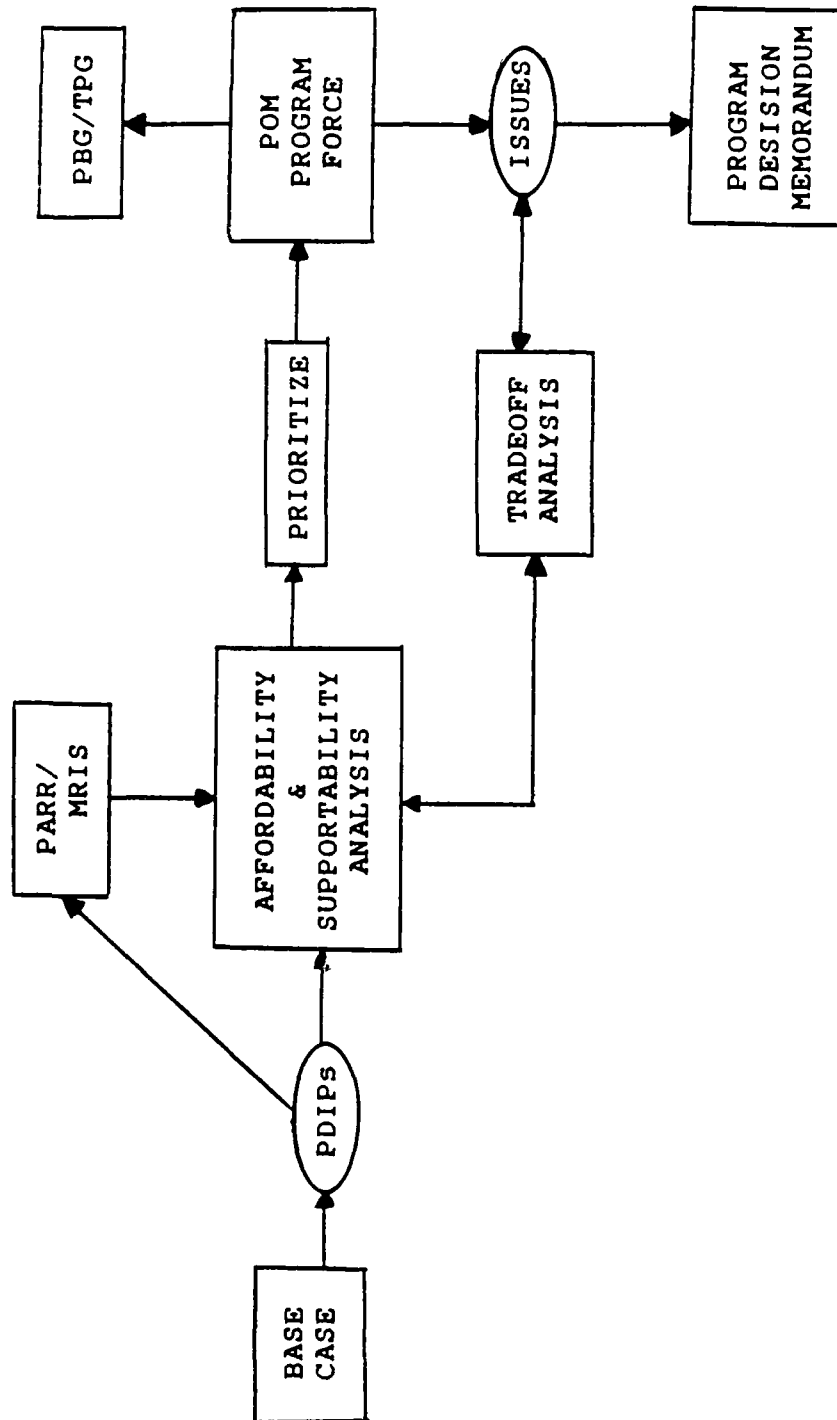
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Figure 4.4   Force Development   (Ref. 16)

Figure 4.5   Force Programming   (Ref. 16)

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through which the Army requests funding from OSD to carry out its force structure initiatives and programs.

4. Budgeting

During the budgeting phase, the manpower requirements for the program force are translated into requests for end strength authorizations. In addition, justification is provided to support appropriations and defend budget requests. The COB is used to analyze, manage, and implement manpower authorizations in the Army budget formulation process. It provides detailed information for use by manpower managers and appropriation directors in developing and evaluating budget estimates. The manpower data in the COB are used to help support the Budget Estimate Submission to OSD and defend budget requests to OMB and Congress.

5. Authorization Management

Authorization management consists of several processes which are the responsibility of manpower managers. AR 570-4 lists five specific manpower management functions that are required to properly man the Army force structure. These functions are listed in Table 5.

a. Requirements Determination

The requirements determination function involves the identification of the minimum number and types of personnel needed to accomplish valid mission responsibilities. Manpower requirements are to be based on the most effective and efficient organization. Several tools are used in the requirements determination.

The Manpower Staffing Standards System (MS-3) is used for functional areas in TDA organizations where manpower requirements are workload driven. Manpower Requirements Criteria (MARC) are used for TOE combat support and combat service support functions.

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TABLE 5
MANPOWER MANAGEMENT FUNCTIONS

* Requirements Determination

* Planning, Programming, and Budgeting

* Documentation

* Allocation

* Analysis and Evaluation

(Ref. 10)

Manpower surveys and staffing guides are used for organizational or functional areas in TDA functions where manpower requirements are not workload driven, where standards have not yet been developed, or where unique organizations exist. [Ref. 10:p. 4]

b. Planning, Programming, and Budgeting

The second function given manpower managers is planning, programming, and budgeting. Planning involves the structuring of Army forces within established manpower constraints to accomplish national strategic goals. This includes peacetime maintenance and contingency and mobilization capabilities. Programming involves the allocation of manpower throughout the years of the FYDP to support a given force structure. Budgeting includes the request, appropriation, allocation, and management of manpower resources. [Ref. 10]

c. Documentation

Another manpower management function is documentation. Each Army unit has its mission, structure, personnel and equipment requirements and authorizations in an authorization document. These documents are used at every level of command. At the unit level, they are used as authority to requisition personnel and equipment and to evaluate readiness. The data in these documents are also used to manage personnel and materiel procurement, force planning, programming, budgeting, and training. [Ref. 15] The Army maintains several systems to accomplish documentation.

(1) **Force Accounting System (FAS)**. HQDA provides guidance on troop accounting and documentation that directs specific force structure actions be carried out within allocated manpower resources. Troop lists for current, budget, and program years are

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provided from the Master Force (M-Force) maintained in the Army's Force Accounting System (FAS). The M-Force is the official statement of changes to unit structure from the current year through the end of the POM. The FAS is an automated management information system containing data necessary for force structuring, force planning, and accounting of all Army units. Serving as the Army's official record of force structure decisions, the FAS provides users with force planning information. The system contains personnel strength data by military identity (officer, warrant officer, enlisted) and by civilian category (direct or indirect hire). [Ref. 15]

(2) **Command Plan.** Twice a year, MACOMs are required to develop a command plan reflecting how HQDA force structure guidance will be implemented. Several sources are used to prepare command plans. These inputs include: the PBG; policies, goals, plans, and other guidance continuously provided by HQDA; the MACOM's current force structure; plans submitted by subordinate organizations; earlier PARR submissions; and results of MACOM analyses and decisions. [Ref. 15]

The command plan consists of troop lists for current and projected forces, results of executability analysis, and justification for deviation from HQDA guidance. Command plans are submitted to HQDA for review and approval. They are compared with the M-Force and PBG to determine if they comply with guidance. The command plans are used to update MACOM force structure data in the FAS and, upon HQDA approval, become the basis for MACOM unit documentation. [Ref. 15]

(3) **The Army Authorization Documents System (TAADS).** Every Army unit has an authorization document that reflects the organizational structure and

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resources and serves as the basis for requisitioning. The Army Authorization Documents System (TAADS) is an automated system that contains all unit authorization documents; maintains quantitative and qualitative personnel and equipment data; and interfaces with other DA-automated systems, such as FAS.

There are two basic authorization documents in the Army: Modification Tables of Organization and Equipment (MTOE) and Tables of Distribution and Allowances (TDA). The MTOE is a modified version of a published TOE that prescribes the mission, organizational structure, personnel, and equipment necessary to perform a mission in a specific geographic operational environment.

A TDA prescribes the organizational structure, personnel, and equipment for a unit having a support mission for which a TOE does not exist. TDA's normally contain civilian positions and apply to noncombat, nondeployable units. [Ref 16] Each TDA document is command unique, usually representing general support units. Approved MTOEs and TDAs are documented in TAADS, which is used to update the M-Force.

(4) Structure and Composition System. The Structure and Composition System (SACS) is a network of computer programs that combines data from several management information systems. SACS is used to determine personnel and equipment requirements and authorizations needed for a specific force structure over a seven-year period (current, budget, and the program years). The two components of the system are the Personnel Structure and Composition System (PERSACS) and the Logistics Structure and Composition System (LOGSACS).

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PERSACS combines data from the M-Force, TAADS and TOE Systems to determine military personnel requirements and authorizations by grade and Military Occupational Specialty/Specialty Skill Identifier (MOS/SSI). The personnel data are used for recruiting, training, promoting, validating requisitions, and distribution. LOGSACS combines data from the M-Force, TAADS, TOE and other systems to state equipment requirements and authorizations. LOGSACS is used for procurement appropriations, equipment procurement, and distribution. [Ref. 16]

4. Allocation

The allocation function is accomplished through the PBG. The HQDA PBG distributes Army military and civilian manpower authorized spaces to MACOMs and Operating Agencies for the current, budget, and five program years. As stated earlier, the HQDA PBG updates the manpower distribution three times a year. MACOMs and agencies then suballocate the manpower resources to subordinate echelons. Authorizations are allocated against validated manpower requirements.

5. Analysis and Evaluation

The last function listed in AR 570-4 is analysis and evaluation. Missions, priorities, guidance, constraints, and available resources must be continuously analyzed and evaluated to make to proper manpower assessments. In addition, analysts and managers review TAADS documents and various actual strength and budget performance reports to analyze and evaluate manpower utilization and improve manpower management credibility. Manpower utilization analysis and evaluation programs include initiatives, such as:

(1) Continuing analysis to ensure that end-strength ceilings are not exceeded on the last day of the fiscal year.

(2)   Monitoring of overhire to ensure maximum use of budgeted personnel funds while retaining flexibility to meet end-year personnel ceilings without excessive personnel turbulence.

(3)   Ensure that civilian manpower is used throughout the year at levels that will preclude or minimize the need for reductions-in-force.

(4)   Review of vacancies to determine if authorizations should be reallocated to other higher priority missions.

(5)   Review of efficiency or cost effectiveness initiatives to eliminate unnecessary manpower requirements and to achieve the most efficient use of funds.

(6)   Monitoring workload trends to determine possible reallocation of spaces. [Ref. 10: p. 31]

Manpower managers must continuously coordinate with civilian personnel officers, position management officers, and functional personnel to ensure that position management efforts are fully supported. In addition, resource managers must be informed of anticipated manpower requirements and workloads so that funds are made available to meet these manpower needs. [Ref. 10:p. 31]

C.   SUMMARY

The PPBES is the Army's primary strategic management system used to allocate and manage resources. In conjunction with the PPBES process, the Manpower and Force Management Process plans, develops, programs, and then implements the Army's force structure. The interrelated phases of the PPBES and the Force Management Process provide for an orderly progression from national security objectives to development of force requirements, establishment of force structure and programs within resource constraints, and to preparation, execution and review of the budget. [Ref. 15:p. 14-1]

The goal of these processes is to ensure that the program is developed and executed based on Army goals and objectives designed to meet the demands of the

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national military strategy within available resources.
The formalized execution phase of the PPBES and the
Analysis and Evaluation function of manpower management
emphasize the Army's responsibility to effectively
evaluate   and   be   accountable   for   the day-to-day
management of its resources. However, as discussed in
the next chapter, there are deficiencies in the PPBES
process that inhibit the Army's ability to ensure that
its resources are being effectively utilized.

The   next   chapter   introduces   OORMS as the Army's
proposed means for correcting the deficiencies in the
PPBES.   The OORMS concept is explained in some detail
and an overview of the operational process is provided.
As a total resource system, OORMS has potential impact
on both the PPBES and the Manpower and Force Management
Processes.

V. OUTPUT ORIENTED RESOURCE MANAGEMENT SYSTEM (OORMS)

A. PURPOSE

The purpose of OORMS is to meet a fundamental requirement of Army resource management: feedback in the PPBES. Specifically, OORMS is intended to provide feedback on execution in terms of outputs achieved for inputs planned, programmed, budgeted and then used. The current resource management process does not include this important link. With this essential feedback, the Army can improve its ability to evaluate how well Army programs are formulated and executed. Information provided by OORMS will also improve the quality of future decisions concerning Army programs and alternatives.

B. THE OORMS CONCEPT

OORMS is a component of an overall concept developed by the Army in 1984 to improve resource management. At that time, the Army formally defined the problems with the current PPBES process and established a series of steps required to improve the process. In order to understand the purpose of OORMS, it is important to examine the total concept in which OORMS plays a role.

The Army identified a basic problem in the PPBES: the lack of a systematic feedback loop to determine how well decisions made in the early phases actually turn out. In the planning phase, The Army Plan is developed by function. In the programming phase, resources are programmed to support specific missions and initiatives within each of the functions. The transition from planning to programming involves a translation of

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overall functions into a presentation of missions within each function in the form of PDIPs. [Ref. 17]

The move from programming to budgeting and execution changes the focus from the horizontal structure of resources across program packages to the vertical structure of resources in strict appropriations. The appropriation structure is necessary in the presentation of the budget to Congress. This structure is also used to distribute approved funds to Army organizations and to report back actual program execution.

Although the Congressional requirement of budgeting by appropriation is unavoidable, the transition from program packages to appropriation has caused a disconnect in the PPBES process. This change in resource structure causes problems in establishing a meaningful feedback loop that expresses execution in the same terms as planning and programming. The Army has recently recognized the need to modify the PPBES process to retain both horizontal and vertical management visibility throughout all phases of the PPBES.

To accomplish this modification, the Army is designing a major revision to the currently appropriation-oriented Army Management Structure (AMS) [Ref. 17:p. 3]. The redesigned AMS will consist of modular components with standard coding structures that can be used in a data base management environment [Ref. 18:p. 3]. This new structure will allow resources to be tracked both to horizontally and vertically throughout the PPBES process.

However, the AMS redesign is not expected to be fully implemented until the 1990s. In the meantime, the Army has begun a series of six steps to close the

loop in the current system. OORMS plays a key role in this scenario.

1. Establish a Logical Program Package Structure

The first step is to establish a logical program package structure to accommodate both the external requirements of the PPBES process and the way that the Army operates [Ref. 12]. The package structure must also be meaningful to programmers, budgeters, and those who execute the programs. Figure 5.1 illustrates the new Standard Army Management Structure (SAMS).

a. Battalion Level Structure

The core of the structure is the Standard Requirements Code (SRC) level on the battalion level force structure of the Army. This where the soldiers and weapons are actually deployed.

b. TOE Mission

Based on the TAA decisions, the TOE structure is built to higher level units (e.g., divisions, separate brigades, combat support and combat service support units). This should be done in terms of both wartime corps commands and peacetime management support channel units.

c. Weapons Acquisition and Fielding

Once the TOE MDEP network has been created, the Army must assess the capability of weapons systems on hand and scheduled for procurement to support that structure. These weapons MDEPs will include the resources associated with the development, production, facility construction, and fielding of major systems.

d. TDA Missions

TDA mission activities support the Total Army and include such functions as recruiting, enlistment processing, training, logistics support, and research and development. Army commands must define
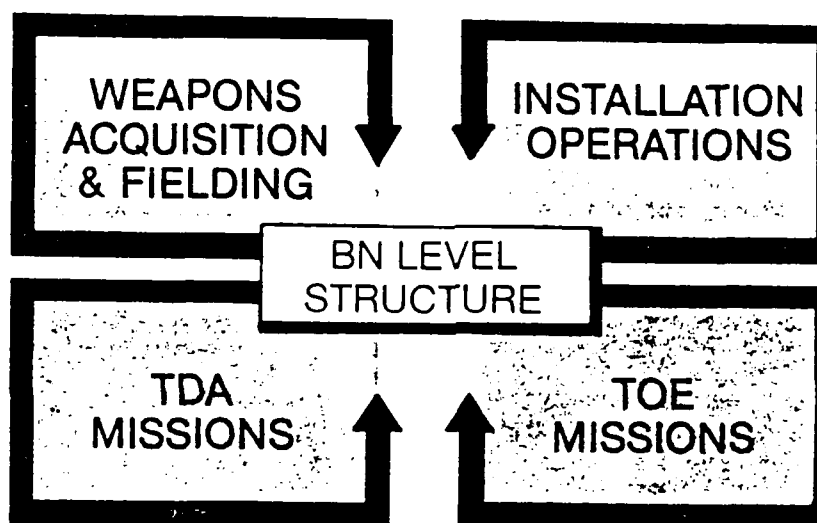
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Figure 5.1   The Standard Army Management Structure
(SAMS)   (Ref. 19)

recurring TDA activities and form meaningful program packages.

e. Standard Installation Operations (SIO)

The operating requirements of garrisons, communities and installations must be separately addressed. These activities provide support to assigned military personnel, nearby retirees, eligible family members, and DA civilians. All resources for a function in the Army will eventually be in the same MDEP.

2. Establish Output/Performance Measures

The second step involves the identification of workload inputs and outputs to support resources in the PDIPs. The Army needs to define performance factors, workloads, inputs, and outputs for its resource packages. It is necessary to specify what the resources are supposed to produce. Without this information, the Army can not establish accountability of its programs or evaluate program execution. The Army decision making process must become output-oriented. [Ref. 12]

3. Expand the Time Frame

The third major step requires the expansion of the five year PDIP to the full eight year period of the PPBES by adding the prior, current, and budget year [Ref. 12] This extension must be made with the understanding that the Army does not have the same freedom to change resources in the budget and current years as in the program years. Although there are distinct control differences between program and budget periods, the PPBES program package must carry into budget and execution.

The Army's tool to bridge the two periods is the MDEP. As previously discussed, the MDEP is a linkup of the programmer's PDIP and the budgeter's BIP. As the common denominator for programming, budgeting, and

execution, the MDEP is the key element in establishing a feedback loop for decision makers.

4. Adapt the Army Accounting Systems

The fourth step requires the adaptation of Army accounting systems to provide feedback on program performance on execution. The MDEP identifier must be added to fund citations and accounting system master files. This will provide the capability to extract financial and performance feedback information by programming package. In addition, the Army plans to integrate information from the operating systems (e.g., training, logistics, readiness) into the process. [Ref. 12] With both operational and financial data, there will be a more comprehensive picture of program accomplishment.

5. Modify the Program and Budget Development Process

The fifth step is to develop a "user friendly" automated program and budget development process that would be used at all levels. This system would provide the capability to manage resources by both program package and appropriation. It would include standard data displays using standard software on microcomputers to pass data on MDEP resources and outputs between levels of command. The system will also include some analytical capability to help managers evaluate programs and identify problems. [Ref. 12]

6. Link to Documentation Modernization (DOCMOD)

The last step requires that these initiatives be linked to Documentation Modernization (DOCMOD) efforts. DOCMOD is a modernization program for the Army's management systems, including its doctrine, practices, and procedures. [Ref. 20:p. 17] This link will ensure that the PPBES processes and resource packages are consistent with the decision packages that

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determine force structure, equipment procurement, and fielding and operational support decisions [Ref. 12:p. 10].

Once the six steps described above are accomplished, OORMS will provide the means for accumulating the data to support resource management information needs. Essentially, OORMS is an integrating mechanism, supplying the automation support necessary to effectively use the newly structured resource management concept. It will produce the data needed by managers to make better decisions.

C. THE OORMS OPERATIONAL PROCESS

1. Basic Elements of OORMS

There are two basic elements of OORMS. The first is the Management Decision Package (MDEP)--the principal building block of the OORMS system. The core elements of the MDEP include eight years of dollar and manpower resource inputs and the quantitative measures of the expected outputs given these inputs. MDEPs fall primarily into five categories: TOE, TDA, SIO, weapons systems, and special functional packages. Figure 5.2 illustrates how the MDEP is integrated in OORMS.

The second principal element of OORMS is the Resource Package. The Resource Package is the means for transmitting guidance (dollars, manpower, and output) by MDEP from HQDA to MACOMs and then to MSCs and installations. It will also be used to transmit responses, unresourced requirements, and execution data back up the chain of command. The basic package contains a Resource Data Worksheet (RDW), an audit trail, and a remarks file. [Ref. 21]

The main component of the Resource Package is the RDW, an automated spreadsheet. The RDW originating at HQDA will contain budget data for the current year, budget year, and five program years. Responses to the
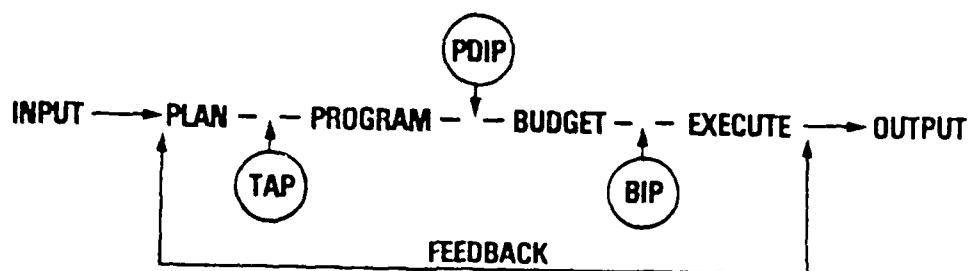
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OUTPUT ORIENTED RESOURCE MANAGEMENT SYSTEM

FIGURE 14-8
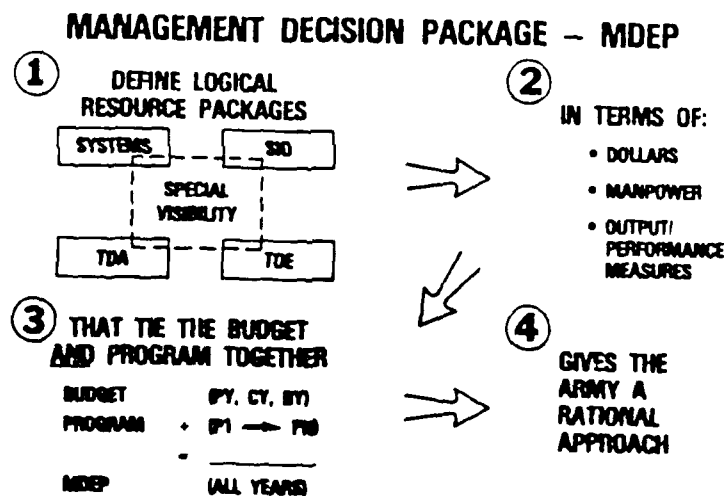
MANAGEMENT DECISION PACKAGE – MDEP

Figure 5.2   The Relationship between the MDEP and OORMS
in the PPBES (Ref. 15)

guidance, unresourced requirements, and execution data will be added to the worksheet by MACOMs, MSCs, and installations. When completed, the RDW (Figure 5.3) will reflect budget, funding, authority, and execution data for the prior and current years and guidance and response data for the budget years and five program years. [Ref. 21:p. II-5]

The audit trail in the Resource Package will be used to track changes to RDWs. The remarks file will contain MDEP-specific remarks and point-of-contact information. The RDW, audit trail, and remarks file will be maintained in separate files.

2. The Operational Cycle

There are two principal cycles in the OORMS process: distribution and response. During the distribution cycle, program and budget guidance and controls are issued by HQDA to the MACOMs/Operating Agencies and then distributed to MSCs and installations. On the response cycle, execution plans, execution reports, and COB Schedules are prepared and transmitted back up the chain of command.

3. Levels of Operation

OORMS has been designed to operate at three principal levels of command: HQDA, MACOM/Operating Agency, and installation. At the HQDA level, the Army staff will manage the programming and budgeting of aggregated MDEPs within OORMS. HQDA will issue guidance to MACOMs to allocate resources in support of each MDEP. However, the OORMS RDW will replace the PBG as the vehicle for publishing this guidance to MACOMs [Ref. 21:p. III-3]. RDW releases will coincide with the current schedule of PBG releases.

HQDA will collect the MACOMs' responses to the guidance as the RDWs are returned in support of COB submissions. The MACOMs' allocation of resources,

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Figure 5.3   The Resource Data Worksheet (RDW) (Ref. 22)

resourced requirements, new initiatives, and current execution data will be displayed against the HQDA-issued MDEP guidance on the RDW. HQDA will use this information, along with the PARRs and COBs, to prepare the next major program and budget submissions, execution plan, and the next round of guidance.

At the MACOM level, the resource manager is responsible for distributing the guidance received from HQDA to subordinate MSCs and installations. Using decision support software provided by OORMS, MACOMs will transform MACOM-level RDWs from HQDA into installation-level RDWs [Ref 21:p. III-11]. The apportioned RDWs will then be distributed to the MACOMs' subordinate MSCs/installations along with the rest of the Resource Package.

The Resource Packages are returned to the MACOMs from the MSCs/installations in support of COB or execution plan preparation. Two types of data will be added to the RDW by MSCs/installations: responses to program and budget guidance and current year data. The MSC/installation RDW responses will be used by the MACOMs to realign the guidance they sent down. The execution data are used for comparison against previous and current guidance for the current fiscal year. MSC/installation responses and MACOM realignments of resources are then used to prepare the Resource Package response to HQDA.

At the MSC/installation level, the resource manager receives guidance in the RDW included in the Resource Package from the MACOM. A procedure analogous to that used by MACOMs is followed to distribute the guidance to subordinate organizations. Similarly, resourced and unresourced requirements as well as execution data are arrayed against the issued guidance and returned to the MACOM. OORMS is currently designed

to function down to the installation level only. However, the MSCs/installations could conceivably extend the process further based on local requirements. [Ref 13:p. 4-19]

4. System Applications

OORMS was originally expected to be used to transmit program and budget data, support PARR and COB preparation, submit execution plans, and support special resource management issues [Ref. 21:p. II-7]. During FY87, the first year of OORMS operations, OORMS software will be used to forward program and budget guidance and to prepare COB Schedules 1 (Unresourced Requirements/Excess Funds) and 8 (Command Requested Changes). Furthermore, installations will prepare an execution plan and execution reports by MDEP. [Ref. 23]

In addition to these specific applications, OORMS data can be used for various analyses. The first type is trend analysis within an MDEP over a number of years. This can be done by both MDEP and program element (PE). With the output measures, analysts will be able to see what has happened to a specific MDEP historically and in the program and budget years. [Ref. 22]

OORMS will also be useful in execution analyses. By preparing an execution plan, installations will have a base against which actual execution can be measured. If actual outputs are less than planned, then actual expenditure of resources should also be lower. If execution data show otherwise, analysts must determine the reasons for this unexpected relationship between resource consumption and corresponding outputs. Again, this analysis can be done by MDEP or PE.

A third possible analysis is determining the cost of doing business in terms of resources needed to produce output objectives. By using output measures

provided by OORMS, analysts can evaluate program objectives, resource requirements, required outputs, and the effects of shortfalls [Ref 22:p. 24]. OORMS data can provide the necessary information to determine what it takes to perform an installation's or other organization's missions.

Finally, output performance analysis can be performed with the inclusion of output measures in OORMS. When resources are increased or decreased in a given program, the corresponding expected outputs can be adjusted. Furthermore, given the expected constraints on resources, output performance analysis should provide the basis for program formulation and defense. [Ref. 22:p. 25]

5. **System Data**

The OORMS process was designed to access several existing databases for guidance, execution, and output data. The HQDA PROBE database will be the original source for resource guidance. At the installations, the Army's Standard Finance System (STANFINS) will be the primary source for dollar resource execution data. Execution reporting of manpower utilization by MDEP and PE was expected to require interface with several different systems and likely generate new reporting requirements [Ref. 21:p. II-51]. It was anticipated that the Standard Installation/Division Personnel System (SIDPERS) and TAADS could provide military personnel data and the Standard Civilian Personnel Management Information System (SCIPMIS) could be used for civilians. The source for output data would be primarily new since there is very little output information currently developed.

6. Level of Detail

Each level of command has different requirements for level of detail in the data. In OORMS, the level of detail is changed during the process of distributing the resources. Since HQDA requires the least amount of detail, the guidance originates in its most general form. As the guidance is distributed by MACOMs to MSCs/installations, further detail is added (e.g., station, Element of Resource). Conversely, during the response cycle, the execution data are rolled up to more summarized form for transmittal up the chain of command.

7. OORMS Hardware and Software

OORMS has been designed to use hardware and software that is widely available and standard to resource managers. The specific system configuration is as follows:

(1) An IBM-PC compatible or WANG microcomputer--with 512K internal memory and a 10 megabyte hard disk

(2) A disk operating system--DOS 2.1 or higher

(3) A spreadsheet software package--LOTUS 1-2-3 release 1A or higher

(4) OORMS System Software, Version 1.0 or higher

(5) A database management system--dBASEIII

(6) A wide-carriage printer. [Ref. 13:p. 4-21]

OORMS is intended to interface with existing resource management and reporting systems at HQDA, MACOM, and installation levels. However, the responsibility has been placed on the organizations involved to ensure that the interfaces are accomplished properly.

D. SUMMARY

OORMS implements a new approach to Army resource management. It is expected to provide the means for tracking resources in standard terms from Army programming, through budgeting and then execution. OORMS was developed in response to a need for a

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systematic feedback loop in the PPBES process. The ultimate objective is to provide managers with more meaningful information to evaluate program execution and improve resource allocation decisions.

The next chapter focuses on the impact of OORMS on manpower and force management. To help evaluate the overall effects of OORMS, the system will be analyzed in terms of how it will affect each manpower management function. In addition, a discussion is provided on the current status of OORMS and manpower management's role in determining its future.

VI. IMPACT OF OORMS ON MANPOWER MANAGEMENT

A. INTRODUCTION

AR 570-4, Manpower Management, states that OORMS "...will simplify and expedite both the preparation of the COB/PARR and the distribution, analysis and forwarding to HQDA of data indicative of the performance and execution of existing programs and budgets." Furthermore, OORMS is expected to "...involve the distributive processes of manpower management (planning, programming, budgeting, and allocation) and because of its emphasis on performance measures, the manpower requirements determination process." [Ref. 10:p. 5] To evaluate the potential impact on manpower management, it is necessary to analyze how OORMS will affect each manpower management function.

B. REQUIREMENTS DETERMINATION

As previously discussed, the Army has been criticized for its inadequate requirements determination process. In response to this criticism, the Army has taken action to improve this process through the development of MS-3 and MARC. The goal is to establish a credible requirements determination system that can be used to determine future manpower needs and is compatible with PPBES formats.

OORMS promises to support the requirements determination process by providing the key element of outputs achieved for resources used. The output measures are expected to vary in level of detail at each organizational level. Installations will need the most detailed information, while HQDA will require the least detail. Furthermore, under the OORMS concept,

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the basic characteristics of output measures include the following:

(1) Measures must belong to a hierarchy that is logical from bottom to top.

(2) Measures must be meaningful to the resource manager or decision maker at each level.

(3) Measures must be at the appropriate level of detail and specificity.

(4) Measures must be linked to activities /functions with high visibility and with high payoffs.

(5) Measures must be easily quantified and obtained. [Ref. 21:p. D-2]

The Army Materiel Command has developed a concept that would include two levels of input/output measures. Performance factors or workload indicators would be used to support the micro level (e.g., program element or the specific account within a system or program) while input/output measures would justify the macro level (i.e., total weapon system or program level). Since both levels of detail are needed, depending on the organizational level of the user, both micro performance factors and macro input/output measures would be included for each MDEP. [Ref. 24]

Ideally, output measures would be related to the Army's ultimate goal--ready units for prompt and sustained combat. However, readiness in national defense is hard to quantify and measure. Conceptually, the most feasible way of quantifying a nonmeasurable goal (e.g., defense by deterrence) is to find certain measurable results (performance-oriented) or processes that are correlated with the desired outputs. [Ref. 25:p. 140] These proxies can serve as quantitative links to defense outputs and can provide a means for evaluating achievement of Army goals.

Although the concept of output measures is sound in theory, it has proven to be the weakest link in OORMS development. Some Army activities and functions lend themselves readily to input/output formulation; others

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do not. For example, many of the activities within the SIO can be addressed on the basis of population served. The personnel training function can be evaluated based on student loads needed to meet annual force structure requirements. Recruitment may be measured in terms of the service entrants necessary to fill the force requirements. [Ref. 22:p. 25] However, for many Army functions, the identifying and quantifying of desired output is very difficult.

The Army is currently trying to develop a methodology for establishing output measures for base operations functions. To date, the process has not progressed past the theoretical stage. The goal is to develop measures that have the basic characteristics discussed above, but this has proven to be very difficult. [Ref. 26]

Proponents for OORMS output measures are trying to use what is already available in order to avoid unnecessary work. Sources include MS-3 efforts, Army contracts, and various Army functional reports. The problem is that many of the performance factors traditionally associated with base operations functions really measure the process, rather than the output. [Ref. 26] Since the Army is not confident that these measures proxy "desired output" adequately, they are of questionable value.

MACOMs have also been involved in output measure development by addressing their respective MACOM-unique MDEPs. Again, there has been little success in this exercise. One MACOM even had a contractor assigned to the project. However, eventually the contractor gave up; the task proved to be too difficult. [Ref. 27]

Without these critical output measures, OORMS will do little to support requirements determination. In fact, the system as it is currently designed does not

even include manpower requirements. It appears that OORMS may not provide anything to manpower managers to help perform requirements determination.

C. PLANNING, PROGRAMMING AND BUDGETING

Since OORMS was developed to enhance the PPBES process, it should impact on manpower management's planning, programming, and budgeting function. Planning includes structuring of Army forces to meet national strategic goals. Programming involves the development and documentation of manpower needs in the FYDP. Revisions are frequently made in response to changes in Army or DOD guidance or national priorities. During budgeting, manpower requirements are translated into requests for end strength authorizations.

To a large extent, the planning, programming, and budgeting function is dependent on the quality of the requirements determination function. The accuracy of the manpower resource needs reflected in the FYDP and budget requests is affected by the credibility of the manpower requirements program. Therefore, the impact of OORMS on the quality of manpower data in the planning, programming, and budgeting process is related to the effects of OORMS on requirements. As previously discussed, the current status of OORMS does not offer much support to manpower requirements programs.

OORMS is expected, however, to affect the process used to transmit program and budget data and PARR and COB preparation. Of course, to date it seems that the effects are quite limited. During FY87, OORMS was used to forward program and budget guidance and only a portion of the COB. Furthermore, the COB doesn't cover RDTE, procurement or military appropriations.

For manpower, OORMS was even less useful during FY87 since manpower workyear guidance and end strength figures were omitted for some Army organizations.

Overall, OORMS provided little change in the planning, programming, and budgeting process for manpower. [Ref. 28]

D. DOCUMENTATION

Documentation in manpower management currently involves numerous automated systems, including TAADS, FAS, and SACS. OORMS will not replace any of these systems, although there are studies currently ongoing to determine the feasibility of OORMS interfacing with one or more of them. It is important that the manpower data in OORMS are consistent with that in other manpower systems. OORMS's effect on manpower documentation depends on whether the necessary interfaces can be created. The OORMS system, as currently designed, will not affect manpower documentation processes.

E. ALLOCATION

Allocation of manpower is accomplished by the PBG. The PBG is published by HQDA three times a year to update the distribution of Army military and civilian manpower authorizations. In addition to these cyclical updates, HQDA and MACOMS often issue inter-cycle changes via letter or message, as the need arises.

OORMS is supposed to replace the PBG as the way to communicate or allocate resource decisions to MACOMs and installations. The current plan is to continue to issue updates to allocations three times a year. To be responsive to manpower management needs, OORMS must also be able to accommodate inter-cycle updates. The system software is expected to provide this capability [Ref. 29].

The institution of MDEPs has led to the need to allocate manpower by an additional category--MDEP. The inclusion of MDEPS in allocation has caused some

problems for manpower managers. As part of the transition to the new concept of managing resources by MDEP, MACOMs have modified the format of their PBGs to include the MDEP. As a result, the PBG has grown to an unmanageable size. The complete document now produces stacks of paper several feet high. A document that size is excessively cumbersome for MACOMs that update the PBG for their subordinate organizations on a quarterly and sometimes monthly basis. [Ref. 27]

This volume of data has been very difficult to manage. Many of the MDEPs do not easily roll up to meaningful packages that MACOMs need for analysis. Furthermore, the Army is still required to manage resources by appropriation to meet outside reporting requirements. Therefore, the PBG must continue to allocate manpower by Army Management Structure code (AMSCO) as well as numerous other data elements (e.g., fiscal year, command, personnel type, military by grade, etc.). The result is that the PBG now contains excessive detail that undermines its usefulness.

One of the objectives of OORMS is to provide more time for analysis and review through the reduction in preparation time. However, it appears that any time savings produced by OORMS automation initiatives will be more than overcome by increased manhours needed to decipher an unmanageable volume of data. To be supportive of manpower management allocation, OORMS must provide data at the appropriate level of detail to facilitate interpretation and analysis.

F. ANALYSIS AND EVALUATION

The analysis and evaluation function involves the assessment of manpower programs given the missions, guidance, constraints, and available resources. One of the most important components is the review and analysis of manpower utilization data. Analysts and

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managers use these data to evaluate how well manpower resources are being utilized to accomplish assigned workloads or programs.

One of the primary benefits to be provided by OORMS is timely execution data (dollars, manpower and outputs). Manpower managers would certainly benefit from useful manpower data, particularly if they were accompanied by the associated output produced. Most of the utilization data currently available are of limited value to manpower analysts, particularly at the installation level. As previously discussed, the utilization reports are too complicated and lengthy. Furthermore, there has been a history of redundant manpower reporting, as similar data appear on several reports.

Although OORMS promises to provide the manpower data needed, the system is currently not delivering what was expected. To begin with, there are no output measures and therefore, no output accomplishment data. Furthermore, execution reports either have omitted civilian and military end strength figures or included numbers that were not in line with manpower reporting [Ref. 30]. One problem is that the data are extracted from finance and accounting systems that report by pay periods. Manpower reports require end strength figures as of the end of the month which usually does not coincide with pay periods. As a result, the manpower data produced in OORMS are inaccurate and unreliable for manpower management purposes.

Several other problems have persisted with the execution reports. Finance and accounting systems manage by operating agency while manpower reports require the data by Unit Identification Code (UIC) or MSC and separate reporting activity. Therefore, the

data in OORMS were in a format that was inconsistent with manpower reporting needs. [Ref. 31]

This problem was worsened by the fact that most installation execution reports are transferred up finance and accounting channels, bypassing installation manpower organizations. The data are often not reviewed for validity until they reach the MACOM. Also, as with the PBG, it is difficult and time consuming to analyze the execution reports given their extensive MDEP detail. Since the execution report does not replace any of the currently required manpower reports, this is additional workload for manpower analysts.

Many of the current problems with the execution reports are likely due to the fact that OORMS is new and still being refined. The operating procedures and data consistency problems may be worked out as manpower management needs are better defined and communicated. As it currently stands, OORMS does not help manpower managers perform analysis and evaluation. Rather, it creates an additional workload burden.

G. CURRENT STATUS OF OORMS

It is apparent that OORMS cannot support manpower management as it currently operates. The manpower data in the system are either incomplete, inconsistent, or in a format that is inappropriate for manpower reporting and analysis. Furthermore, the addition of MDEPs has caused key manpower documents (PBG and execution report) to expand to an unmanageable size. Army-wide, there are over 1000 MDEPs [Ref. 32]. An individual MACOM may have resources assigned to several hundred of these. To manage by MDEP, in addition to the traditional categories (e.g., AMSCO and UIC) will likely cause an expanded workload.

The Army Staff is currently studying OORMS to determine its future. A task force was established in late FY87 to review all aspects the system (including manpower) to identify its deficiencies and determine whether it can still meet its original objectives. The task force is expected to report its findings by February 1988.
[Ref. 33]

Army manpower management is represented on the task force and is in the process of defining manpower needs from OORMS. It is apparent that manpower was neglected in the process of designing and implementing the system to this point. There has been little or no documentation or correspondence on the issue of manpower in OORMS. The matter has just recently received sufficient attention of manpower managers and OORMS developers to prompt some action.

The key issue to be addressed is the interface of OORMS with other manpower systems [Ref. 34]. Even before OORMS, there has been a persistent problem with discrepancies between manpower data in FAS and the PBG [Ref. 35]. The major problem seems to be inconsistencies in data elements within the two systems. To eliminate the problem of duplicate and inconsistent guidance, manpower analysts on the Army staff have recommended that the FAS be the official data source for manpower allocations instead of the PBG [Ref. 36].

Once the manpower community agrees on the official source for manpower guidance, OORMS must be capable of handling manpower data in a compatible format and level of detail. If FAS is the manpower data source, OORMS must include manpower strengths by FY, MDEP, UIC, and AMSCO [Ref. 37]. However, OORMS currently does not have the capability to handle manpower by UIC and may

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never have it. There has been some question as to whether PCs would be able to handle the added volume of data resulting from the inclusion of UIC level detail [Ref. 38].

This issue must be satisfactorily resolved if OORMS is to be of any benefit to manpower. The system must provide the data at the same level of detail and in the same format that the manpower community is required to manage by. Otherwise, it is likely that the manpower community will have to maintain redundant systems-- OORMS and the current systems.

Without output measures and appropriate manpower data, OORMS will be of limited value and the system requirements will create an unnecessary additional workload. This outcome must be avoided if OORMS is going to be supportive, rather than counter-productive, to manpower management.

VII. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

The goals of this thesis are to determine the relationship of OORMS to the PPBES and manpower management systems, and to evaluate the impact of OORMS on manpower management in terms of the quality and usefulness of the information provided and the workload required of manpower staffs to support the system.

A literature review identified some important issues in current Army PPBES and manpower management systems. Historically, the Army has been criticized for the deficiencies in its systems for managing financial and manpower resources. In particular, GAO has cited the Army for the lack of credibility in its system for determining manpower requirements and for its inability to provide reliable, consistent data on actual accomplishments during the execution of its programs.

The PPBES is the primary management system used by the Army to allocate and manage resources. Within the PPBES process, the Manpower and Force Management Process plans, develops, and then implements the Army's force structure. Both systems are structured to accommodate a logical progression of activities that start with the identification of national military strategy and end with the execution of programs designed to meet these national objectives.

Although the execution phase of the PPBES emphasizes the importance of evaluating program accomplishments, the actual PPBES process is deficient in providing the information needed to assess program execution. To correct this deficiency, the Army

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developed the OORMS concept to improve the linkage between plans, programs, budgets, and executions. OORMS is intended to produce feedback on execution in terms of outputs achieved for inputs assigned in the PPBES.

OORMS is expected to provide the means for tracking resources in standard terms from Army programming, through budgeting and then execution. This will be accomplished through use of the MDEP as the common denominator for identifying resources throughout the PPBES cycle. OORMS is the integrating mechanism that supplies the automation support necessary to produce the data needed by managers to evaluate program execution.

AR 570-4, <u>Manpower Management</u>, indicates that OORMS will affect manpower management in its planning, programming and budgeting function, allocation function, and requirements determination function. OORMS is also supposed to enhance the analysis of data indicative of program performance and execution. An analysis of the affects of OORMS on each manpower management function provides an indication of the overall impact of the system.

By providing data on outputs produced with given levels of manpower inputs, OORMS could support the requirements determination function. These data would be useful to help the Army overcome the deficiencies identified by GAO in the requirements function. To date, however, there has been little progress made in the development of output measures. Of crucial importance, the system does not even include manpower requirements. Without output measures, OORMS offers little support to requirements determination.

OORMS was originally designed to affect the planning programming, and budgeting function by

transmitting program and budget data and portions of the PARR and COB. However, the effects will be limited since OORMS only covers portions of these documents. Furthermore, FY87 OORMS program and budget guidance omitted essential manpower data.

OORMS is not expected to affect the documentation function. It will not replace any of the manpower systems currently supporting documentation. The primary issue to be resolved is the interface of OORMS with these systems.

The allocation function will be affected by OORMS if it replaces the PBG as the means for transmitting resource decisions. However, adding the MDEP to the allocation process could lead to an unmanageable volume of data in the guidance document. The result may be increased workload for manpower managers in performing the allocation function.

OORMS offers the potential to improve manpower analysis and evaluation by providing meaningful and timely execution data. However, the execution data currently produced in OORMS are of little value to manpower analysts. The data are incomplete, inconsistent, or presented in a format that is incompatible with manpower management needs. Furthermore, the reporting requirements of OORMS currently represent an added workload and duplication of effort.

Overall, it is clear that OORMS as currently developed does not support manpower management. The OORMS concept is sound and has the potential to enhance manpower management, particularly the requirements determination function. In practice, however, OORMS has many deficiencies that prevent it from providing benefits to manpower analysts. The ultimate impact of

OORMS will depend on whether these problems are resolved.

B. RECOMMENDATIONS

For manpower managers, the goal is to have OORMS provide consistent, timely data that are at the appropriate level of detail, without causing duplication of effort or added workload. To help achieve this goal the following recommendations are provided:

(1) Before OORMS can support the manpower community, manpower managers must determine their requirements and articulate them in writing. As a part of this effort, all current manpower reports and systems should be reviewed for usefulness and consistency. Data requirements should be consistent with manpower regulations. Once the current manpower reporting systems are made consistent, OORMS data should be structured in a compatible format.

(2) To ensure that the needs of each organizational level are met, representatives from MACOMs, MSCs, and installations should be involved in the identification of manpower needs. Furthermore, each organizational level should be represented in each phase of OORMS implementation to provide feedback on the impact of the system. The usefulness of OORMS should be evaluated for all levels in the organization, not just at HQDA.

(3) Efforts on the development of output measures should be accelerated. They are the key to the success of OORMS. Without these critical measures, OORMS cannot provide the feedback needed to evaluate program execution.

(4) OORMS proponents should ensure that information and progress reports on OORMS are provided to all resource management organizations down through the installation level. The OORMS concept has not been promoted very well at installations, particularly in manpower organizations. Resource managers are more likely to be receptive to new systems if they have been involved, or at least informed, from the beginning.

(5)   The framework and criteria developed in this
      thesis are useful for assessing the effects of
      OORMS on manpower management. As the system is
      further developed, modified, and implemented, it
      must be evaluated in terms of its impact on all
      areas of manpower management.

APPENDIX A

GLOSSARY

ALLOCATION - Process of distributing authorizations to subordinate echelons.

COMMAND PLAN - Report submitted to HQDA by a MACOM or selected operating agency which reflects the current and future force structure and manpower distribution.

FIVE YEAR DEFENSE PROGRAM (FYDP) - Specifies the force levels in terms of major mission programs and support objectives and projects. The FYDP constitutes the official summary of programs approved by the Secretary of Defense.

FORCE ACCOUNTING SYSTEM (FAS) - An automated system used to account for both actual and planned force structure actions over time. It includes the Master-Force which is the official Army troop list, including all units in the force structure for all years.

INPUT - A measure of the resources consumed (or used) by an organization during the process(es) of meeting its assigned responsibilities.

MANPOWER AUTHORIZATIONS - That portion of required manpower which is available for allocation and is reflected in the authorized columns of current or projected authorization documents. Because of budget constraints, authorized manpower is normally less than required manpower.

MANPOWER REQUIREMENTS -- Human resources needed to accomplish specified workloads of organizations.

MANPOWER REQUIREMENTS CRITERIA (MARC) - HQDA approved standards for determining minimum essential wartime position requirements for combat support and combat service support functions in TOE/MTOE.

MANPOWER STAFFING STANDARDS SYSTEM (MS-3) - A manpower requirements determination approach based on workload-driven and functionally oriented standards.

MASTER FORCE (M-FORCE) - The authoritative record at HQDA of Army units and military/civilian manpower structure strength and authorized strength (required and authorized columns of MTOE/TDA) programmed for the

current and budget fiscal years and all subsequent years for which data exists.

MINIMUM RISK FORCE (MRF) - A fully structured and supported force that is unconstrained by manpower or support resources. The MRF identifies the force capabilities required to provide a high assurance of successfully executing the national military strategy.

MODIFICATION TABLES OF ORGANIZATION AND EQUIPMENT (MTOE) - A modified version of a published TOE which prescribes the normal mission, organizational structure, personnel and equipment requirements for a military unit. It reflects the specific needs of a unit for mission performance in a specific geographical environment.

OBJECTIVE FORCE - A force which focuses on the year of the current POM that is used as a realistic goal in the subsequent development of the program force. The objective force has more constraints applied to it than either the minimum risk force or the planning force. The objective force is a macro level (division) look at the forces required to meet specific objectives.

OUTPUT - A measure of the aggregate total of all the products or services provided by an organization. Organizations with multiple functions or missions may have more than one product or output measure.

PLANNING FORCE - A fully structured and supported force that imposes additional constraints on the minimum risk force in an effort to achieve a more affordable and realistic force, capable of achieving the national objectives but with some inherent level of risk.

PROGRAM AND BUDGET GUIDANCE (PBG) - A document issued by HQDA to convey to commands and agencies the objectives, policies, standards, support services, obligation estimates, and broad goals that have been approved to meet requirements generated by national military strategy. It provides military and civilian allocations for current, budget, and all program fiscal years.

PROGRAMMING FORCE - The tactical support forces and general support forces necessary to support the divisional and nondivisional combat forces contained in the objective force. The programming force is used to support the Army POM.

PROGRAM OBJECTIVE MEMORANDUM (POM) - Submitted to the Office of the Secretary of Defense in May of each year, it formally transmits the Army proposals for resource allocation in consonance with program guidance. Describes all aspects of Army programs to increase the operational readiness of the total Army. It highlights forces, manpower, and materiel acquisition.

STRUCTURE AND COMPOSITION SYSTEM (SACS) - An automated process which determines requirements/authorizations for personnel by grade, branch, and military occupational specialty and for equipment by line item number.

TABLES OF DISTRIBUTION AND ALLOWANCES (TDA) - An authorization document which prescribes the organizational structure for a units having a support mission for which a TOE does not exist and which normally contains civilian positions. This document applies to noncombat, nondeployable units.

TABLES OF ORGANIZATION AND EQUIPMENT (TOE) - A table which prescribes the method by which mission, organizational structure, personnel and equipment requirements for deployable combat, combat support, and combat service support units are structured and documented, and is the basis for structuring MTOE units.

THE ARMY AUTHORIZATION DOCUMENTS SYSTEM (TAADS) - An automated system that supports the development and documentation of organizational structures, and the requirements for authorizations of personnel and equipment needed to accomplish the assigned missions of Army units.

APPENDIX B
ACRONYMS AND ABBREVIATIONS

A

AG....................Army Guidance

AMS...................Army Management Structure

AMSCO.................Army Management Structure Code

B

BES...................Budget Estimates Submission

BIP...................Budget Increment Package

C

COB...................Command Operating Budget

CONUS.................Continental United States

CSA...................Chief of Staff, Army

D

DG....................Defense Guidance

DOCMOD................Documentation Modernization

DOD...................Department of Defense

DRB...................Defense Resources Board

E

EPA...................Extended Planning Annex

F

FAS...................Force Accounting System

FY....................Fiscal Year

FYDP..................Five Year Defense Program

J

JCS...................Joint Chiefs of Staff

JPAM..................Joint Program Assessment Memorandum

JSPD..................Joint Strategic Planning Document

L

LOGSACS...............Logistics Structure and Composition System

LRRDAP................Long Range Research, Development and Acquisition Plan

M

MACOM.................Major Command

MARC....................Manpower Requirements Criteria

MDEP....................Management Decision Package

M-FORCE.................Master-Force

MOS.....................Military Occupational Specialty

MRF.....................Minimum Risk Force

MRIS....................Modernization Resource
                        Information Submission

MSC.....................Major Subordinate Command

MS-3....................Manpower Staffing Standards
                        System

MTOE....................Modification Tables of
                        Organization and Equipment

O

OMB.....................Office of Management and Budget

OORMS...................Output Oriented Resource
                        Management System

OSD.....................Office of the Secretary of
                        Defense

P

PARR....................Program Analysis Resource Review

PBD.....................Program Budget Decision

PBG.....................Program and Budget Guidance

PDIP....................Program Development Increment
                        Package

PDM.....................Program Decision Memorandum

PE......................Program Element

PERSACS.................Personnel Structure and
                        Composition System

POM.....................Program Objective Memorandum

PPBERS..................Program Performance and Budget
                        Execution Review System

PPBES...................Planning, Programming,
                        Budgeting, and Execution System

PPBS....................Planning. Programming, and
                        Budgeting System

PROBE...................Program Optimization and Budget
                        Evaluation

R

RDTE....................Research, Development, Test and
                        Evaluation

RDW.....................Resource Data Worksheet

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